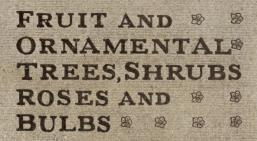
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STORRISON HARRISON COMPANY





PAINESVILLE NURSERIES

> PAINTSVILLE OHIO



Suitable Distances for Planting

Apples, Standard 30 to 40 feet	Grapes 8 to 10 feet
" Dwarf 8 to 10 "	Currants 3 to 4 "
Pears, Standard 18 to 20 "	Gooseberries 3 to 4 "
" Dwarf 10 "	Raspberries, Red 3 to 4 "
Peaches 16 to 18 "	" Black 4 to 5 "
Nectarines and Apricots 16 to 18 "	Blackberries 5 to 7 "
Cherries, Sweet	Strawberries, rows 1 by 3½ "
" Sour 15 to 18 "	" in beds 1½ by 1½ "
Plums 16 to 20 "	Asparagus, in beds 1 by 1½ "
Quinces 10 to 12 "	in field I by 3 "

Number of Trees or Plants on an Acre

2	feet	each	way							10,890	15	feet	each	way									194
3	"	4.6								4,840	18	"	"	"								1	135
1	"	66								2722	20	"	"	66	_								IIO
5	6.	"								1,742	25	"	61	44									70
6		"	6.6							1,742 1,210 680	30	44	4.6	66									48
8	66	66	"							680	33	"	66	"									40
TO		6.6	66							430	40		6.6	44									28
12	66	66	"							212					100				1				

To ascertain the number of plants required to the acre at any given distance, divide the number of square feet (43,560) in an acre by the number of square feet you desire to devote to each plant. For instance, in strawberries planted $1\frac{1}{2}$ by 3 feet, each hill will occupy $4\frac{1}{2}$ square feet, making 9,680 plants to the acre.

GUARANTEE OF GENUINENESS

While we exercise the greatest diligence and care to have all our trees, etc., true to label, and hold ourselves in readiness on proper proof to replace all trees, etc., that may prove untrue to label free of charge, or refund the amount paid, it is mutually understood and agreed to between the purchaser and ourselves, that our guarantee of genuineness shall in no case make us liable for any sum greater than that originally received for said trees, etc., that prove untrue.

Fruit and Ornamental Trees. Shrubs. Koses Perennial Plants. etc.

Established Eighteen Fifty-three



Grown and for sale at the

PAINESVILLE NURSERIES

The Storrs & Harrison Company
PAINESVILLE · OHIO

THE PAINESVILLE NURSERIES

Their Unrivaled Location Superior Stock, Methods and Business Rules



HE nursery business, like other branches of industry, has developed into wonderful proportions in late years, so much so that where one bush or tree was sold a relatively few years ago, thousands are now required to meet the demand. The cause of this is very apparent. In no time in the history of our country has there been such an exodus of people to the suburbs of the large cities and to the country, for the establishment of homes; and the dissemination of tons of literature on nature subjects, right living, the love of the country, etc., is responsible for the greatly increased demand for all those

things which a well-equipped Nursery, such as ours, handles.

Those who know the Painesville Nurseries also know that we have grown with the demands upon us, and for over a half-century have we been adding to and building up a nursery which stands second to none in the country. The original founder of the Painesville Nurseries was guided by a wonderful instinct in the location of the plant, and the Nurseries, extending for two miles along the shore of Lake Erie, now embrace over a thousand acres of various kind of soils which enables us to grow the largest assortment of fruit and ornamental stock, and to plant each kind in environments especially adapted to its best development. Our immense acreage gives plenty of space for the proper development of top and root, and gives opportunity for the cultivation of those fibrous, healthy root systems which are so necessary to successful transplanting.

We are located on main lines of Lake Shore and Nickel Plate, branch line of B. & O. R. R.; have American, National, United States and local electric Express Companies, giving us direct connections and prompt service for all shipments.

Our Superior Facilities

Careful digging, handling and packing are necessary in order to insure success with even the best-grown stock. Quantities of it are ruined every season through ignorance of our best methods, or lack of the proper facilities for handling it. Here our fifty years of experience as nurserymen counts as a great advantage to all who deal with us. All our departments are carefully systematized and under the personal supervision of experienced managers or members of the firm.

Our cellars and packing-houses are the largest and best-equipped in the trade. These enable us to store great quantities of stock, with absolute safety from the cold and the climatic changes of winter, in such a way as to prevent early spring growth and to facilitate handling and shipping to different localities at the right time for planting.

Forty-five large greenhouses, of the best modern construction, supplemented with several acres under sashes, are devoted to the propagation of such hardy plants, roses, shrubs, vines and fruits as can best be started under glass. Here, too, is grown a full line of tender greenhouse and bedding plants, for which a separate catalogue is issued.

The largest assortment of stock grown by one firm is, therefore, ready to be shipped direct to purchasers from our Nurseries. We can supply almost anything of value that you may desire in the planting line, from seedlings to selected specimens, in large or small quantities.

Our Nurseries are regularly inspected by the proper authorities, and a certificate of inspection accompanies each shipment sent out by us. We are well supplied with fumigating houses, and can comply with the laws of different states in this respect. We always fumigate stock when requested to do so.

Visitors Are Always Welcome

Direct dealing with customers, as noted elsewhere, is a specialty with us. Thus we are responsible only for stock of our own growing, handled but once, graded to the highest standard, and packed to perfection. When purchasers can visit our Nurseries to personally inspect and select the stock desired, we are glad to welcome them and show them over our grounds. The best time to make such visits is in the growing season.

To Correspondents

Our specialty is direct dealing with customers. We employ no soliciting agents. A large amount of stock is furnished dealers in trees, plants, etc. If they contract to procure of us the entire amount of their sales, we permit them to represent the stock sold as coming from our Nurseries. Many of these men have been handling our stock for years and are doing a perfectly honest, legitimate business. If doubtful as to the reliability

of any one trying to sell you stock, write us, giving his name, before signing any orders. Sometimes dealers take advantage of our reputation in effecting sales, yet procure their stock where it can be picked up the cheapest, and we know nothing of the transaction until their customers write us, complaining of poor packing, stock poor, or not true to name, etc.

Orders should always be placed early before assortments are broken. It is often impossible to procure varieties wanted if orders are delayed until time for planting. When spring planting is preferred, we will book orders in fall and set stock aside in cellar ready for shipment at any desired date.

In ordering, write the name, number and size of each variety plainly, so as to avoid errors. In ordering fruit trees, also state whether standard or dwarf trees are wanted. In filling orders we reserve the right, in case we are out of a variety ordered, to substitute another of equal merit, when it can be done, always labeling with correct name, unless customers write "no substitution" in the order.

To insure attention, all correspondence, inquiries, etc., should be written on a separate sheet from order, with name and address on both.

All goods will be delivered at railway or express office free of drayage,

We take receipts for all goods shipped, after which purchasers must look to forwarders for all damage caused by delay or miscarriage.

Plain directions about marking and the mode of conveyance are of the utmost importance. When full instructions are not given, we use our best judgment, but in doing so assume no responsibility.

Mistakes. We make them occasionally, and hold ourselves in readiness promptly to rectify them, so far as possible. Stock should be carefully examined and counted, upon receipt; if not right, write us at once, good-naturedly if you can, but write anyhow, stating exactly what the trouble is. As it is beyond our power to control the seasons or treatment of stock after receipt, we cannot pay attention to complaints unless promptly made.

Read carefully our guarantee of genuineness on second page of cover.

Small trees, vines, etc., can be safely forwarded by mail to any part of the United States.

All orders from unknown correspondents must be accompanied by remittance for amount of bill or suitable reference.

Remember our firm and nursery names, "The Storrs & Harrison Co.," "Painesville Nurseries." We receive many complaints about goods sold as coming from "Lake Co. Nurseries," "Great Northern Nurseries," etc., Painesville, Ohio. There are no such establishments.

To Dealers

All dealers are hereby warned against using our catalogue in effecting their sales, unless they have a contract with us to supply them trees, etc., as we cannot allow salesmen to use our catalogue or represent their trees as coming from our establishment unless there is a contract existing between us.

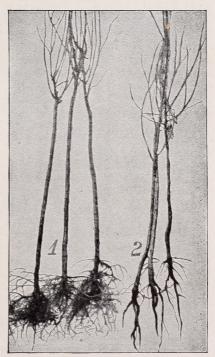
Suggestions to Planters

Success depends in a large measure on the treatment given to stock after it is received by the planter. Thousands of wellgrown, healthy specimens, delivered in first-class condition, are annually lost through neglect and bad treatment.

Avoid all unnecessary exposure to the air. The natural place for the roots of trees is in the ground; as soon as received they should be heeled in, so that mellow earth will come in contact with all the roots. When planting, take out but few at a time. An hour's exposure to hot sun or drying wind is sure death to many trees. More particularly is this the case with evergreens; when once dried, no amount of soaking can dilate and restore them to their normal condition.

It may be taken as an invariable rule that good fruit cannot be raised upon a soil which is wet or not well drained. It should be rich enough and in sufficient tilth to produce a good crop of corn.

Cut off the ends of all bruised or broken roots with a sharp knife, as a clean cut will neal much sooner than a bruise. If it be a standard tree for the orchard, trim it up to four or five



Showing the ditterence between well-rooted trees such as we supply, and poorly rooted trees that are too often sent out by the ordinary nurseryman,

branches suitable to form the top, and cut each of the side branches back to a bud, 4 or 5 inches from the body of the tree, leaving the leader, or central shoot, from 8 to 12 inches long. When there are no side branches suitable for this purpose, the tree should be divested of all its branches and headed back to a proper height to form the top. If the tree is to be trained in dwarf or pyramidal form, the necessary pruning should be done by cutting back the last year's growth in such a way as to give the tree the shape desired.

Do not plant too many varieties. To plant only a few kinds known to be desirable in your locality and market will prove a much better paying investment, planting other kinds only for testing.

In properly prepared ground, the holes need not be dug much larger than necessary to receive the roots in their original position, but it is always best to dig some distance below the roots and refill with surface soil. For trees planted in sod ground the hole should be dug three times the size necessary in well-plowed land. Two persons are required to plant trees properly: while one holds the tree upright, let the other fill rich mellow earth carefully in among the roots, keeping them in position. When the roots are covered, stamp the soil down as solid as the surrounding surface. If the soil is dry or lumpy, something more powerful than the foot may be required for this purpose. Thousands of trees are lost annually by leaving the ground loose after planting, permitting the air to reach the roots. Plant trees, etc., as deep as they stood in the nursery. Dwarf pears should be planted 3 or 4 inches deeper.

Remove all label wire from trees, that it may not cut the branches; keep a record or map of the names and varieties planted. If the trees are tall or much exposed to winds, tie to a stake in such a manner as to prevent chafing. As soon as planted, 5 or 6 inches of coarse manure or other litter should be spread over the ground about the tree; keep the surface moist.

No grass or grain crops should be grown among fruit trees until they have reached bearing size. The ground between the rows can, with advantage to the trees, be cultivated with potatoes, cabbage, melons, etc., or corn, if not planted within 6 feet of the trees.

If trees are received in a frozen state, place the package unopened in a cellar, away from the frost and heat, until thawed out, then unpack. If partially dried from long exposure, bury entirely in the ground, or place in water from 12 to 24 hours.

Wintering Nursery Stock Procured in the Fall

In sections where the winters are very severe, it is not advisable to set trees and plants in fall; but the practice of procuring them in the fall and planting them in the spring is becoming more and more popular as experience has shown its advantages. In the fall, nurserymen are not hurried with their own planting; the season for planting is comparatively long, and the weather not nearly so changeable.

There is a popular impression that trees dug in the fall and heeled in over winter are not equal to trees fresh dug in the spring. If the heeling is properly done, there could be no greater mistake. Young trees, if left standing in the nursery rows, are fuller of sap and much more likely to be injured by frost during the winter. If dug in fall the amount of sap is reduced, the wood appears more fully ripened, and, if treated as described below, they come through bright and uninjured and can be planted as soon as the frost is out the of ground. Such early planted trees are more likely to live than late planted ones.

To insure success, select a dry spot where no water will stand during the winter, having no grass near to invite mice. Dig a trench deep enough to admit one layer of roots, and sloping enough to permit the trees to form an angle of not more than 30 degrees with the ground. Having placed one layer of roots in this trench, cover them with mellow earth extending well up to the stems and see that this is firmly packed. Then add another layer of trees overlapping the first, and continue as at first until all are heeled in. As soon as this is done, cover the tops with evergreen boughs or earth.

In addition to this No. 1 Catalogue of Fruit and Ornamental Trees, etc., we issue the following, which will be mailed free to all applicants.

No. 2. Issued annually about January 1. About 160 pages, describing the leading varieties of Flower and Vegetable Seeds, Roses, Greenhouse and Bedding Plants, Fruit and Ornamental Trees, Shrubs, Vines, etc., with Price List.

No. 3. Issued in August. Descriptive of Holland and other Bulbs, Winter-blooming Plants, Trees, Vines, Small Fruits, etc., with Price List.

THE AMERICAN POMOLOGICAL SOCIETY

is an organization which, since 1848, has done noble work in improving fruits and in stimulating horticulture. Its biennial sessions are the most important horticultural gatherings held in America. Every one interested in fruits should take membership in this fine old society, the proceedings of which, as sent to all members, are worth in practical suggestions many times the small membership fee. For information communicate with the secretary, Prof. John Craig, Ithaca, New York.

FRUITS

For the Orchard and Garden

The growing of fruit in this country has been constantly increasing year by year, and, with the improved methods of shipment, it has become one of the most profitable industries to those who, by exercising judicious care in the selection of varieties and giving the proper attention to cultivation, are able to produce the best results. Not all fruits will grow in all localities. We have made an exhaustive study of the question of fruit-growing and shall be happy to give our patrons the benefit of our research and experience. Naturally, authorities on the subject will be consulted by painstaking orchardists, and the advice we offer on these pages is merely suggestive.

Our stocks of all the various fruit trees and plants are in fine condition, well rooted, vigorous and free from disease, grown by the most improved modern methods. A copy of certificate of inspection accompanies each order.

The dates of ripening given to fruits are for average seasons in northern Ohio.

APPLES

In nearly all well-drained soils Apple Trees will thrive. The introduction of new and hardy varieties has greatly extended the area of their profitable cultivation, and new methods of routing insect enemies, as well as fungous diseases, make the orchard crop much surer.

DWARF TREES on Paradise stock can be furnished in a select list of varieties covering the season. They may be planted 5 or 6 feet apart, and will develop into beautiful little bushes, or may be trained as espaliers. In small village gardens many more of the Dwarf Apples should be planted, as they take up little room, bear early, usually the second or third year after planting, and abundant crops thereafter.

Varieties marked with a star (*) are the Russian or hardier sorts.

Summer Apples

*EARLY COLTON. An attractive creamy white Apple of uniformly medium size, nearly round, regular; better in many sections than Early Harvest. The tree bears annually and abundantly. August.

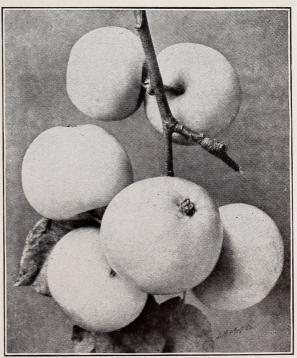
EARLY HARVEST. Medium to large; pale yellow, white-fleshed, tender and subacid. Ripens in July, but may be used for cooking earlier. Tree erect, moderate in growth, but quite productive.

GOLDEN SWEET. Of fine size, color and quality; one of the very best sweet Apples. Forms a vigorous, spreading, fruitful tree. August.

KESWICK CODLIN. A large, oblong, straw-yellow Apple. The tree is vigorous, bearing abundantly and when quite young. August to October.

MAXSON'S EARLY. One of the finest summer cooking Apples. The large, pale yellow fruits are tart, acid, tender and wellflavored. The tree produces well and regularly. August.

*RED ASTRACHAN. Large, roundish; deep crimson, with a thick bloom; juicy, tender,



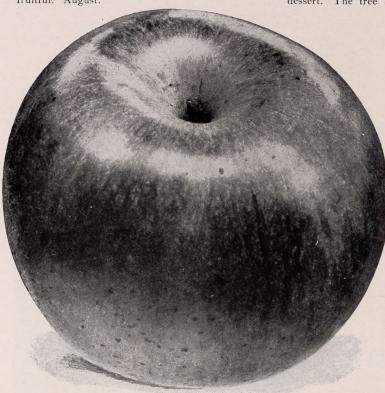
YELLOW TRANSPARENT (see page 6)

Summer Apples, continued

somewhat tart. Valued as one of the most beautiful early market and dessert Apples, also for the extra hardiness and vigor of the tree. August.

SWEET BOUGH: Large, light yellow, tender, sweet and excellent for baking. Of compact, moderate growth, producing large crops annually and is a profitable market sort. August.

SOPS OF WINE. An oblong, dark crimson Apple of medium size; flesh juicy, subacid, stained with red. The tree is a vigorous grower and is exceedingly fruitful. August.



DUCHESS OF OLDENBURG

*TETOFSKY. Of medium size, richly striped with red and yellow; juicy, pleasantly acid. Hardy and productive. July and August.

*YELLOW TRANSPARENT. A particularly desirable and beautiful sort that usually bears the first year after planting, often in the nursery rows. Fruits of medium size, round-ovate, pale waxen yellow when fully ripe, pleasantly acid, tender and good, ripening in July and August, before Early Harvest. Free-growing and fruitful.

Autumn Apples

ALEXANDER. A very large and beautiful deep crimson Apple, with pleasantly flavored yellowish white flesh. Very hardy. September and October.

AUTUMN STRAWBERRY. Of good size, brilliant coloring and fair quality, this Apple is greatly valued for table and market. Tree robust and productive. September and October.

*DUCHESS OF OLDENBURG. This best known of the Russian Apples is also the handsomest and most generally valuable, succeeding even in the Northwest, where most varieties fail, and yielding well in all sections. The fruits are large, rounded, striped with red and yellow; tender, juicy, of best quality for cooking and esteemed by many for the dessert. The tree bears young, abundantly; very

hardy. August and Sept.

FALL PIPPIN. Large, and when fully ripe, a beautiful yellow. Flesh is tender, rich and of good quality; especially good for culinary purposes. Tree is hardy and long-lived, growing to great size. September to December.

GRAVENSTEIN. Good size; attractive and of excellent quality; one of the finest for cooking, and always brings good prices. Skin is striped with red; flesh is tender, juicy, rich and subacid; tree is hardy, comes into bearing early, and is a sure cropper. September to November.

*HAAS (Fall Queen, Horse). Large, flat, ribbed or quartered; golden green, with russet markings; of good quality. Tree extra hardy, vigorous and fruitful September to November.

MAIDEN'S BLUSH. Of uniformly good size, smooth, round, beautifully flushed with red on creamy yellow

ground; flesh tender, of pleasant but not high flavor. A good market sort because of its attractiveness and the trees' heavy crops. September and October.

MUNSON'S SWEET. Large, finely colored and flavored. Free-growing and productive. October and November.

RAMBO. A pretty red and yellow Apple of medium size and good flavor; widely cultivated and everywhere esteemed. The tree is strong-growing and a heavy bearer. October to December.

RED BEITIGHEIMER. One of the largest and handsomest autumn varieties. Roundish conical; creamy yellow, deeply flushed with crimson; has pleasantly acid, firm, white flesh. Free-growing and fruitful. September.

Autumn Apples, continued

SWEET SWAAR. Large, roundish flat, with golden yellow skin and rich, spicy flesh of the same color. The tree is vigorous and bears abundant annual crops. Excellent for home or market. October.

WESTERN BEAUTY (Summer Rambo). Large to very large; pale yellow, brightly splashed with red; the light yellow flesh is tender, juicy and melting. One of the most desirable sorts for home and market. October and November.

Winter Apples ARKANSAS BLACK.

A remarkably large and handsome crimson-black Apple; perfectly smooth,roundish flat, lightly dotted with white. The flesh is yellow, juicy and delicious, keeping late. December to April.

*BABBITT (Western Baldwin). Large, rounded, deep red, with delightfully crisp, rich, subacid flesh. Forms a strong, large tree, with tough, heavy leaves. January to March.

BALDWIN. A great market Apple; very productive of fair, handsome fruit. Large, rounded, deep red, with crisp, juicy flesh. December to March.

BANANA. Large; clear, pale yellow, with pinkish red blush; flesh

is tender, sweet and exceedingly aromatic. Excellent for dessert, but not so good for cooking. Tree is a good grower, bears early and fairly heavy crops. November to February.

BAXTER. Fruit large to very large, roundish, somewhat flattened at the base; skin is pale yellow, largely mottled and striped with bright red; flesh stained with red, firm, tender, moderately juicy and aromatic. Tree is productive and very vigorous, growing to large size. November to January.

*BELLE DE BOSKOOP. Fruit of good size, beautifully colored with shaded reds on a creamy ground; crisp-fleshed, tender, juicy and high-flavored. Tree robust, bearing young and abundantly. January to March.

BEN DAVIS (New York Pippin, Kentucky Streak, etc.). Vies with Baldwin as a profitable market

Apple for many sections. Large, handsome, brightly striped with red, variable in flavor; late-keeping. Remarkably vigorous and fruitful. January to April.

BISMARCK. The remarkable characteristic of this Apple is that of early fruitage, one-year grafts and two-year trees perfecting fine and handsome fruits. Trees on dwarf stocks, grown in pots or tubs, make beautiful decorative specimens. Fruit is large, handsome, yellow, shaded with red, tender, subacid, of medium quality; good for dessert or cooking.



BAXTER

*BOIKEN. A very desirable variety for the orchard man. The fruit is medium to large, yellow, with red cheek; particularly fine in the spring; especially valuable for cooking; keeps until April or May. Tree is extremely hardy, with thick, heavy foliage; a heavy and annual bearer.

*BOTTLE GREENING. Of medium size; golden green, with crimson blush; flesh white, pleasantly acid, melting. A strong, hardy native of Vermont. January and February.

DOMINIE (Winter Rambo). Large, flattened; greenish yellow, brightly striped with red; tender and good. Tree vigorous, bearing profusely. November to April.

FALLAWATER (Tulpehocken). Large and handsome, with smooth skin of a yellowish green, with dull red cheek; flesh is greenish white, fine-grained

Winter Apples, continued

and juicy. Tree grows fast, and bears young and heavily. November to March.

*FAMEUSE (Snow Apple). One of our finest dessert fruits. Of medium size, smooth, regular, deep crimson, with snowy white, tender, melting flesh of delightful flavor. The tree is vigorous and hardy, succeeding especially well in the North. November to January.

FLORY (Flory's Bellflower). A medium to large, rich yellow Apple, with tender, subacid flesh. Hardy and productive. November and December.

*GANO. An improved Ben Davis, adding to the good qualities of that variety a much handsomer fruit of deep, dark red, that brings a ready sale in market. December to March.

*GIDEON. Medium to large; golden yellow, with bright blush; fine-fleshed, juicy, subacid. Very hardy; bears early and profusely. November to January.

GOLDEN RUSSET. Of medium size, round-ovate; clear golden russet, with slight blush; tender, crisp, juicy and high-flavored. Tree robust and hardy; bearing large crops. November to April.

GREEN SWEET. One of the best winter sweet Apples. Of medium size, with dotted green skin and sweet, delightful flesh. December to April.

*GREENVILLE. A seedling of the fine old Maiden's Blush, with all its good points emphasized, but with somewhat larger, more finely colored fruits that keep much later. They have been kept in an ordinary cellar until June. Dec. to April.

*GRIMES' GOLDEN. A medium to large Apple of beautiful golden color, and of the very highest quality. The hardy, vigorous tree produces large crops. Largely planted in the South and Southwest. January to April.

HUBBARDSTON NONESUCH. Large, handsome, yellow, overlaid with red; tender-fleshed, with distinct, delightful flavor. Strong grower and heavy bearer. November to January.

JONATHAN. Of medium size; pale yellow, heavily flushed with red; rich and juicy. Tree of slender, spreading growth, but quite fruitful. November to March.

KING OF TOMKINS COUNTY. A superb red Apple of extraordinary size and fair quality; the flesh is slightly coarse, but tender and vinous. An abundant annual bearer. November to March.

*McINTOSH RED. Much like Fameuse in appearance and in the quality of its white and tender flesh. Skin is of a beautiful rich crimson. Nov. to Feb.

MAMMOTH BLACK TWIG. A very large and showy dark red Apple from Arkansas, where it is largely planted as superior to the Winesap. The trees are of strong growth, hardy and bear profusely. November to April.

MANN. Medium to large; golden green, with reddened cheek; juicy and well flavored; keeps from January to April. Tree bears young and annually.

NORTHERN SPY. Large; striped, crimson next the sun; juicy, rich and aromatic, retaining these qualities until late spring or summer. The tree grows fast, bears well, blooms later than other sorts. Prune for an open head. January to June.

*NORTHWESTERN GREENING. Like Grimes' Golden in shape and color; of good flavor; keeps long. Tree hardy and vigorous; an annual, abundant bearing sort. January to June.

*ONTARIO. A large and beautifully colored Apple of delightful flavor. Creamy yellow, overlaid with deep, rich red; flesh tender, vinous, slightly aromatic, refreshing. January to April.

OPALESCENT. One peculiarity of this Apple is the wonderfully high polish the skin takes on with slight friction, and it reflects surrounding objects like a globular mirror. Large to very large; light in color, shading to a very dark crimson; flesh yellowish, slightly tinged red; juicy and extra good, with exquisite taste and aroma.

PARADISE WINTER SWEET. Large; creamy yellow, with rosy cheek; sweet and good. Productive and extremely satisfactory for either home or market. December to March.

*PETER. Similar to Wealthy, of which it is a seedling, but ripens five or six weeks later. The tree is strong and hardy, bearing well. November to January.

*PEWAUKEE. Medium to large, round-oblate; bright yellow, flushed with dull red; has white, tender flesh of good to best quality. Tree exceptionally hardy and robust; well suited to cold climates. January to May.

RAWLE'S GENET (Never Fail). Of medium size, round-ovate; pale yellow, streaked with red; juicy and excellent. Free-growing; prolific. January to April.

RHODE ISLAND GREENING. The well-known large, greenish yellow Apple, so much in demand for dessert and cooking. The tree bears regularly and profusely. An autumn Apple in the South, but keeps through winter North.

*ROLFE. A superb dark red Apple that outsells all others in its season. Of best quality. Hardy, free-growing, produces heavy annual crops. November to January.

ROME BEAUTY. Large and handsome, yellow, with crimson cheek, and tender, juicy, yellow flesh. Bears heavy annual crops. One of the best market Apples. November to February.

*SALOME. Of medium and uniform size; quality good, retained even until summer. The tree is of good growth, bearing young and annually; holds its fruit well.

Winter Apples, continued

*SCOTT'S WINTER. One of the best long-keeping, very hardy varieties. The fruits are a bright, attractive red; the flesh white, crisp, spicy and pleasantly acid, at its best in April of May.

STARK. Large, roundish; golden green, with crimson shadings; flesh yellow, moderately juicy, mild, subacid. The tree makes a strong growth, bears early and in abundant, regular crops. One of our best Apples. Jan. to May.

STAYMAN'S WINESAP. One of the finest Apples grown for appearance, flavor and juiciness. A favorite for cider. Medium size, conical; mostly covered with red on yellow ground; flesh fine, crisp and high-flavored. November to April, but keeps well to May.

*SUTTON BEAUTY. A leading market Apple in Massachusetts, where it originated, in western New York, and in some other sections. Medium to large, roundish, waxen yellow, with brilliant blush of red; tender, juicy, subacid, of good flavor and good-

keeping quality. The tree grows and produces freely. November to April.

TALMAN SWEET. Of medium size, pale yellow, slightly tinged with red; firm, rich and sweet. The most valuable Apple for baking. Nov. to April.

TWENTY-OUNCE (Cayuga Red Streak). So extremely large and handsome that it is always a



WEALTHY



STARK

good sort for market; the flesh is coarse, but has a pleasant, sprightly flavor. October to January.

WAGENER. A fine deep red Apple of medium to large size; firm-fleshed, subacid and well-flavored. The tree bears young and yields good annual crops that keep from December to May.

*WALBRIDGE (Edgar Red Streak). Of medium size, brilliantly striped with red; crisp, tender, juicy. Excels in vigor, hardiness and fruitfulness of tree. March to June.

*WEALTHY. Few varieties that are at once so hardy and so productive yield fruit of such good quality,—white-fleshed, juicy and vinous. It is handsome fruit of medium size, smooth, round and deep red. October to January.

WHITE PIPPIN. Large, creamy yellow, with tender white flesh of pleasantly acid taste. January to June.

WINESAP. The well-known deep red market Apple of the West and Southwest. Of medium size and fair to medium quality. Productive; keeps from December to March.

WINTERSTEIN. Medium to large, regular in shape; skin smooth, splashed and striped with carmine; flesh yellowish, tender, juicy, rich, subacid, somewhat sweet. Tree vigorous and regular bearer. October to February.

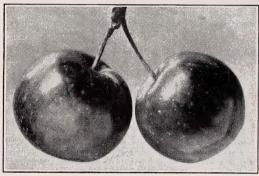
Winter Apples, continued

*WOLF RIVER. Large; greenish yellow, flushed with crimson; flesh white, half-tender, spicy, subacid. January and February.

YORK IMPERIAL. The Pennsylvania market and shipping Apple, long esteemed for its productiveness and the good quality of its fruit which is quite distinct and attractive in appearance, of medium size, smooth, clear waxen yellow, flushed with carmine; the flesh is yellow, firm, of delightful flavor. December to February.

CRAB APPLES

For preserving, jellies and ornament. Many of the newer sorts are delightful table fruits; all are unequaled for cider or vinegar. The trees are noted



HYSLOP CRAB

for their hardiness and vigor and usually bear the second season after planting.

HYSLOP. This tree has large, deep red fruits that hang thickly in clusters, making it very showy in autumn.

MARTHA. A perfect pyramid of bright color in fall when laden with its glossy yellow and crimson fruits, which are mildly tart and good for dessert or cooking.

MONTREAL BEAUTY. Noted for the size and beauty of its fruits, which are bright yellow, brilliantly flushed with red; flesh yellow.

POWERS' LARGE. Waxen white, shaded with crimson and yellow; excellent for cooking.

TRANSCENDENT. This is the best and largest of the Siberian Crabs. The fruits are 1½ to 2 inches in diameter, bright yellow, striped with red; excellent for culinary use. Immensely productive.

VAN WYCK SWEET. Quite large for a Crab, light red and yellow, with a heavy bloom; flesh yellowish white, small-cored, sweet and tender.

WHITNEY. A beautiful early variety that ripens its heavy crop of large and handsome fruit in August. Smooth and glossy green, heavily splashed with carmine; firm-fleshed, juicy; a very fair dessert fruit. Tree hardy and vigorous.

YELLOW SIBERIAN (Golden Beauty). Of medium or large size; golden amber, with red blush in the sun.

PEARS

For years we have made Pear trees one of our leaders, and take much pride in our blocks of them. The soil of our nurseries is particularly adapted to their culture, and we have made a special study of the methods of propagation, pruning, growing, etc. No better trees of either standard or dwarf Pears can be sent out from any nursery than the thousands we ship annually. We believe that few are so good.

The Pear tree will grow on almost any good soil, but thrives best in a rather heavy clay or loam. Standards are best for permanent orchards, dwarfs for fruit-gardens or small lots. Dwarfs must be planted deep enough to cover the junction of pear and quince 2 or 3 inches, and should have about half of the previous season's growth cut off each spring. Their side branches should not be removed higher than a foot from the ground. Given rich, well-tilled soil and pyramidal training, they are very productive and usually begin to bear the second season after planting. Our dwarf trees are budded on the best French quince stocks.

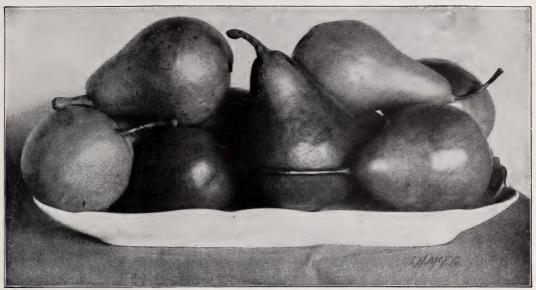
Two very important points in Pear culture are often neglected: the proper thinning and the gathering of the fruit. When the trees are heavily laden, the fruit should be thinned when about one-third grown, or it will be poor and the trees injured. Summer Pears should be gathered about ten days before they are ripe; autumn Pears at least a fortnight; winter varieties, if they will hang so long, may be left until the leaves begin to fall. If, on gently lifting the fruit, the stem separates readily from the twig, it is ripe for gathering. Winter Pears may be stored in any dry cellar and kept until early summer; other varieties may be ripened on shelves in any cool, airy place. To descriptions of varieties we have appended the letters D and S, to indicate favorable growth as dwarfs or standards.

Summer Pears

BARTLETT. Large, coloring when fully ripe to waxen yellow, with red blush; juicy, melting, high-flavored. The tree bears early and abundantly. May be grown either as dwarf or standard, but succeeds best as a standard. August and Sept.

CLAPP'S FAVORITE. A superb, large, long, yellow Pear, richly flushed with russet-red next the sun; juicy and delightful; ripens before Bartlett. Pick the fruit of this variety at least ten days before it would ripen on the tree. August. D. and S.

DOYENNE D'ETE. Small, yellow, shaded with



DISH OF CLAPP'S FAVORITE PEARS

Summer Pears, continued

red; melting, sweet, delicious. The tree is robust and healthy. Early August. S.

EARLY HARVEST. Of good size and color; quality fair. Remarkably productive in the South, where it is the best early market variety. July and August. S.

KOONCE. Of medium size, yellow, with carmine cheek; sweet and high-flavored. The vigorous tree resists blight, and has frequently borne heavy crops when the fruit of other Pears was destroyed by frost. Handsome and highly recommended. July and August. D. and S.

LYERLIE. Of medium size, green, smooth, with small core and few seeds. The tree is healthy and hardy, grows well and usually produces good annual crops. July. S.

MARGARET. Of medium size, golden green, with russet cheek; so rich and delicious as to be generally pronounced the finest Pear of its season. Forms a shapely, vigorous tree; bears early and abundantly. Late August. D. and S.

TYSON. Medium in size, yellow, with russet shadings; melting, sweet, rich and aromatic. August. D. and S.

WILDER. One of the very earliest Pears, attractively colored and of excellent quality, this new variety always finds a ready sale in market and is largely grown by commercial orchardists. Of medium to small size, irregularly bell-shaped but with smooth surface; pale yellow, with shadings of russet-red; flesh melting and delightful, with small core. The tree bears good crops early and annually. Early August. D. and S.

Autumn Pears

BELLE LUCRATIVE. A large and handsome yellowish green sort, with melting, delightful flesh. Productive. September and October. S.

BEURRE D'ANJOU. A large greenish Pear, shaded with russet-crimson; the flesh is high-flavored rich and vinous; the tree very productive, either as dwarf or standard. For late fall and very early winter use, we have no better variety. October to January. D. and S.

CLAIRGEAU. The fine size and exceeding beauty of this Pear render it most valuable for market. The smooth yellow skin is shaded with orange and scarlet; the flesh is yellow, juicy, aromatic, and somewhat granular. The tree bears early and abundantly. October and November. S.

COLUMBIA. A Bartlett-Seckel seedling, combining valuable qualities of each. Of good size, handsome, high-colored and rich-flavored. The hardy, vigorous tree produces well. September and October. D. and S.

DUCHESSE D'ANGOULEME. Among the largest of all our really good Pears. Greenish yellow, splashed with russet; flesh white, juicy, rich-flavored. It succeeds well as a standard, but grown as a dwarf is the most profitable and luscious of all market varieties. We recommend it also for the home garden. October and November. D. and S.

FLEMISH BEAUTY. This fine old Pear is still one of the hardiest and most generally successful over a wide range of country, producing good crops annually of large, handsome fruit that is exceptionally good in quality. September and October. D. and S.

Autumn Pears, continued

GARBER. One of the Japan Hybrids; earlier and larger than Kieffer. The tree is hardý, bears young and in heavy crops. Valuable as a market variety. September and October. S.

HOWELL. A choice Pear of fine size and bright color, excelling also in the quality and flavor of its rich, aromatic flesh. The tree makes a vigorous growth and bears young. Sep. and Oct. D. and S.

KIEFFER. This has become a profitable market variety on account of its good shipping and keeping qualities; its extraordinary size and beauty also make it very salable. While not of the best quality, it is one of the favorite sorts for canning or preserving, and the early-bearing, heavy-cropping trees render it obtainable in quantity. October and November. D. and S.

LOUISE BONNE DE JERSEY. First-rate in quality, size and beauty; pale yellow, with red cheek. Very productive; one of the best dwarf sorts. September and October. D. and S.

ONONDAGA (Swan's Orange). Large, attractive, excellent, though sometimes variable in quality.



ROSSNEY PEAR

Tree robust, early-bearing and productive. October and November. S.

ROSSNEY. This new Pear combines excellent flesh and flavor, large size, bright color, and smooth, regular form with very superior shipping qualities. Two-year grafts have given us remarkably fine specimens of its fruit, which ripens about two weeks later than Bartlett and averages larger. The tree is vigorous, hardy in wood and in fruit-buds, and a great bearer. September. D. and S.

SECKEL. A beautiful and delicious little Pear that is the standard of excellence in its class. One of the richest and highest-flavored Pears known, always in demand for desserts and luncheons, and better known than any Pear of its class. The tree makes a somewhat slow but stout and erect growth. September and October. D. and S.

SHELDON. A large, round, russet-and-red Pear of the very first quality. Hardy, free-growing, fruitful. October. S.

VERMONT BEAUTY. Of medium size, roundish, yellow, heavily shaded with carmine; flesh exceed-

ingly fine, sweet and juicy. The tree makes a strong, healthy growth and bears good crops. October. D. and S.

WORDEN-SECKEL. A worthy seedling of the famous old Seckel, quite as sweet and luscious with the same rare flavor and aroma. Is superior to the Seckel in size, beauty and keeping qualities. The fruits are beautifully smooth and regular, golden yellow with russet-red cheek, and sometimes keep from October until Christmas. The tree makes a more rapid and upright growth than Seckel and excels it in productiveness. D. and S.

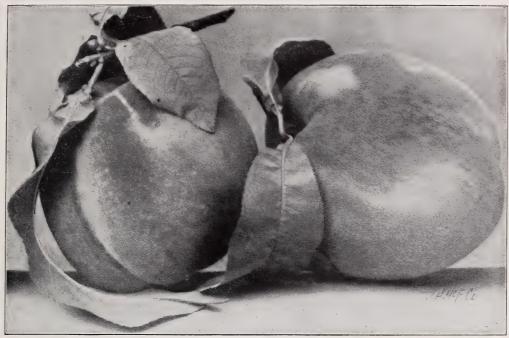
Winter Pears

BORDEAUX. A Pear of the largest size, yet with flesh juicy, melting and rich. The thick, tough skin makes it valuable for winter keeping. December to March. S.

EASTER. Large, roundish oval, yellow with dull red cheek; quality excellent. One of the best winter Pears. Succeeds best on the quince, December to February. D. and S.

LAWRENCE. Medium to large, golden yellow, with melting, aromatic flesh. Unsurpassed as an early winter Pear. The tree is hardy, healthy and productive, bearing large crops annually. Nov. and Dec. D. and S.

PRESIDENT DROUARD. A French variety, highly commended for its rich flavor and great keeping qualities. The fruit is large, handsome, melting, juicy, highly aromatic; tree is vigorous, healthy, and a prolific bearer. February to March. D. and S.



BANNER PEACHES

PEACHES

In the great Peach belt of Ohio and Michigan hundreds of acres of trees shipped from Painesville Nurseries have been in bearing for years. For a generation large planters of that region have depended on us entirely for their stock. Fine orchards of bearing trees in other fruit-belts of the country bear the same convincing evidence as to purity and superiority of the trees we ship.

Our soil and climate are both admirably adapted to the production of stocky, well-rooted Peach trees. Our stocks are seedlings grown from Tennessee native pits; these, budded from young, thrifty, be ring wood, ensure perfectly healthy, fruitful and vigorous trees. Our annual budding of the Peach ranges from 600,000 to 1,000,000 trees. These are grown on the bank of Lake Erie, two miles from any old trees that might communic te insect or fungous pests.

The Peach requires a well-drained, moderately rich soil; sandy loam is probably the best. Keep it clean and mellow about the roots of the trees, which are benefited by an occasional dressing of wood-ashes or potash in some other form. In planting, always cut back the stems of young trees about one-third and cut side branches to a single bud. Yearly pruning is necessary in order to keep the heads low and well furnished with bearing wood, for the fruit is borne on wood of the previous season's growth.

Clingstone varieties are marked with a star (*).

ADMIRAL DEWEY. A perfect freestone, of fine size, form and color, with delicious yellow flesh that is yet firm enough to ship well. The tree is a strong, hardy, symmetrical grower and produces well. The very best early yellow freestone. July.

*ALEXANDER. Medium to large, pale green, heavily flushed with deep red; white-fleshed, tender and juicy. One of the largest and best extraearly varieties. Mid-July.

BANNER. Large, yellow, with crimson cheek; flesh firm, yellow, rich, excellent; keeps and ships as well as any Peach on the market. In growth, early-bearing habit, productiveness and unusual hardiness of wood and bud, the variety is all that could be desired. Has been grown in Canada for fifteen to twenty years and found to produce good

crops yearly through several seasons when all other sorts failed. The very best late market variety. October.

BARNARD'S YELLOW RARERIPE. Of medium size, yellow, with dark red cheek; flesh yellow, red at the stone, juicy, sweet and rich. The tree is extremely hardy and bears annual crops. A profitable variety. Early September.

BEER'S SMOCK. A large, yellow-fleshed Peach, similar to Smock Free, but superior to it. Ripens a few days later and is a better annual bearer. One of the most profitable market sorts. Late September and October.

BELLE OF GEORGIA. Very large; skin white, with red cheek; flesh white, firm and of excellent

Peaches, continued

flavor. Fruit uniformly large and showy. Tree a rapid grower and very productive. Early July.

BRONSON. An excellent market variety from Michigan, found very hardy and productive. Large, yellow, with red cheek; sweet and rich. Late Sept.

CARMAN. A superb Peach of the Elberta type, new, but already a leader for general market and long-distance shipping. Quite large, creamy yellow, with deep blush; skin very tough, protecting the tender, spicy, juicy flesh, which distances in quality that of nearly all other Peaches. The tree is very hardy in bud, grows and produces well, ripening its profuse crops in August.

CHAIR'S CHOICE. Of largest size; deep yellow, with red cheek; flesh very firm, ripening five days earlier than Smock. Makes a strong, profuse-cropping tree. September.

CHAMPION. Unusually large, some specimens measuring 10 inches in circumference. A sweet, rich, juicy freestone, beautifully colored with creamy white and crimson; a good shipper. Hardy, productive, profitable. August.

**CHINESE CLING. A large, creamy white Peach, finely shaded and marbled with red; the white flesh s red at the stone, very juicy, rich and vinous. First of August:

CRAWFORD'S EARLY. A magnificent large yellow Peach, noted for size, good quality and wonderful productiveness. Late August.

CRAWFORD'S LATE. Similar to Crawford's Early, but about a month later in ripening. The

fruit is of the largest size. One of the very finest and most profitable Peaches in our list. Late September.

CROSBY. Of medium size and peculiar roundish-flattened shape; bright yellow, splashed with carmine; flesh yellow, of good flavor. Tree hardy and immensely productive. One of the best-known of Peaches and a decided favorite in some localities. September.

*EARLY RIVERS. A large and very attractive creamy white Peach, with a delicate pink cheek. The rich melting flesh is delightfully sweet and spicy. Distinctly beautiful and delicious. Early August.

ELBERTA. A leading market variety that thrives and produces well in all Peach-growing sections. The fruit is large, handsome bright yellow, overspread with crimson; juicy, good, and so firm as to ship well. Can be gathered while still hard and will ripen up without rotting. The great canning Peach. August and September.

ENGLE'S MAMMOTH. A very fine large market sort, resembling Late Crawford, but more productive. Very profitable wherever grown. September.

FITZGERALD. A particularly hardy variety, originating in Canada, where it succeeds most admirably. Particularly adapted to cold climate. Young trees begin to bear the second year from planting. Fruit is large, bright yellow, suffused with red; flesh deep yellow, and of best flavor. Last of August.

FOSTER. Large, deep orange-red, becoming very dark red on the sunny side; flesh yellow,

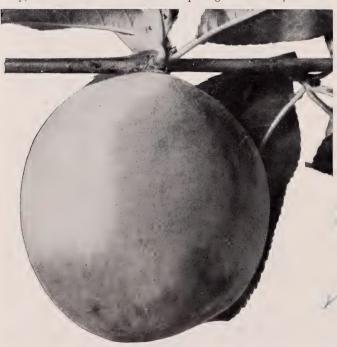
rich, juicy, with pleasant acidity. Earlier than Early Crawford. Late August.

GLOBE. Large, round, golden yellow; firm, sweet and delicious. Noted for rapid growth and enormous crops. September and October.

GOLDEN DROP. The almost translucent golden-colored flesh of this Peach renders it exceedingly attractive in market, where it sells at highest prices. The tree is hardy, bears early and profitably. Late September.

*GREENSBORO. The largest and most beautifully colored of all early sorts. Earlier than Alexander and twice its size. The flesh is white, juicy, of delicious quality for so early a Peach. July.

*HEATH CLING. Very large, creamy white, with faint blush; of first-rate quality, long-keeping; valuable for preserving and canning. October.



CHAMPION PEACH



MATTHEWS' BEAUTY PEACHES

Peaches, continued

HILL'S CHILI. Of medium size, oval, yellow, shaded red. Of medium quality, but esteemed for market in some localities for hardiness and productiveness of tree. September.

HORTON'S RIVERS. This seedling of Early Rivers is exactly like it in color, size and flavor, but ripens later and is a perfect freestone, making it an exceedingly desirable variety. August.

KALAMAZOO. Large, golden yellow, with crimson cheek. The thick yellow flesh is of delightful flavor, the pit small. The tree is strong-growing, hardy and productive. September.

*LEMON CLING. A large, lemon-shaped and colored fruit, brightened with a dark red cheek. Hardy, productive. Mid-September.

ELEMON FREE. An exceedingly large and fine freestone of lemon shape and color. Sometimes measures over 12 inches around the center, and has thick, juicy flesh of excellent quality. Immensely productive. One of the most valuable sorts for home and market use. Especially valuable for preserving and canning. Late September.

LEWIS. The earliest white-fleshed freestone; attractively colored; a good shipper, Of vigorous

growth, very hardy, immensely productive. Early August.

MARSHALL'S LATE. Very large, deep yellow; ripens heavy crops of fine fruit between crops of Smock and Salway, filling an important gap. Early October.

MATTHEWS' BEAUTY. Largely planted as the most valuable succession for Elberta. Large in size, golden yellow, streaked with red; flesh thick, firm, fine. Its good shipping qualities make it an exceedingly valuable variety for market. September.

MAYFLOWER. A most beautiful Peach, bright red all over and of good size. Extremely early, coming into bearing even before Sneed. Tree is a strong, thrifty grower and is inclined to overbear. Young fruit must be thinned for best results. A splendid shipper and most valuable market Peach.

MOUNTAIN ROSE. Above medium size, and exceedingly attractive because of its clear white and red skin; the white, juicy flesh is rich and delightful. Best market Peach of its season and one of the best early freestones. Tree thrifty and fruitful. Early August.

NIAGARA. A New York variety ripening just after Elberta. The fruit is uniformly large, beautiful

Peaches, continued

and luscious. An excellent shipper. Tree is very hardy and resistant to diseases bearing annually very heavy crops.

*OLDMIXON CLING. Large, pale yellow, with red cheek; has rich, high-flavored flesh. Late September.

OLDMIXON FREE. A large, handsome freestone, with tender, excellent white flesh. Early September.

PICQUET'S LATE. Very large, yellow, with red cheek; flesh yellow, rich, sweet, high-flavored. October.

PROLIFIC. A choice large yellow Peach, valuable for succession to Early Crawford, for its fine shipping qualities, its beauty and its good quality. Of strong, thrifty growth, hardy and productive. September.

REEVES' FAVORITE. Large, round, redcheeked; flesh yellow, juicy, melting, with vinous flavor; a good hardy variety. September.

SALWAY. Large, roundish, creamy yellow, with crimson cheek; the deep yellow, juicy flesh is melting, rich and sweet. One of the best late Peaches where it will ripen. October.

*SMOCK CLING. Large, oblong, yellow, and red; juicy, subacid. September.

SMOCK FREE. So enormously productive as to be classed among the very best market sorts. A fine large, yellow Peach. Late September.

*SNEED. Extremely early, ripening eight or ten days before Alexander, and very profitable on this

account. Of medium size, creamy white, with a pretty blush, and of good flavor. Always brings good prices in market. Productive. July.

SNOW'S ORANGE. Medium to large, deep yellow; melting and juicy. A good market Peach on account of its hardiness, heavy crops and fine appearance. September.

STEARNS. A new Michigan Peach which originated in South Haven, Michigan, and has been a most prolific grower. A perfect freestone, with yellow flesh and brilliant red skin. As a shipper it cannot be surpassed. Tree is a strong, upright grower, extremely hardy and free from disease. Considered by the introducer as the best market Peach grown. July.

STEPHEN'S RARERIPE. A large, oblong, whitefleshed freestone, valuable for the beauty and high quality of its fruit, as well as for its early and heavy bearing tree. Ripens with the last of the late Crawfords, and is in season about three weeks longer. Early October.

STUMP THE WORLD. A beautiful red and white Peach of good size and flavor. Very productive. Late September.

SWITZERLAND. Uniformly large, nearly all the fruit making first-grade; white, with red cheek. Very profitable in northern sections. September.

SUSQUEHANNA. A large yellow and red Peach that is both good and handsome, The tree is rather shy-bearing. Late August.

*TRIUMPH. Widely advertised as the earliest yellow-fleshed Peach, ripening with Alexander, and as good for eating and shipping. The tree blooms late, and bears annual, abundant crops of handsome fruit. Freestone when fully ripe. July.

WAGER. Of fair size and good quality, brilliantly colored with red and yellow. The tree is healthy, hardy and long-lived, yielding good crops when other sorts fail. Valuable for canning. Ripens a week later than Crawford's Early.

WHEATLAND. Large, roundish, golden yellow, with crimson blush; juicy, sweet, firm-fleshed, shipping well. Tree strong and healthy. Ripens between the two Crawfords.

*WILLIAMS' FAVORITE. A very profitable market Peach, of fine size and flavor, handsomely colored a good shipper; remarkably hardy and productive in tree. September.

WONDERFUL. A seedling of Smock, and similar to it in every way. A splendid Peach for market. Late September.

YELLOW ST. JOHN. A superfine early yellow freestone, nearly as large as Crawford, as finely colored and of even better flavor. Its round, showy fruits always attract attention and sell well. A fine dessert Peach. The tree bears while still small, and abundantly afterward, August,



NECTARINES

The Nectarine has a smooth skin like the Plum, and requires the same treatment for curculio. It is like the peach in other ways and requires the same culture. The following varieties are the best:

BOSTON. The largest and most beautiful variety known. Deep yellow, mottled nd shaded with red; flesh sweet, with a peculiarly pleasant flavor; freestone. Tree hardy and productive. September.

DOWNTON. Large, pale green, with violet-red cheek; flesh rich and delightful, free from stone. August.

QUINCES

The Quince crop is usually reliable and not often destroyed by capricious weather variations. The trees grow well in any good soil, but prefer a deep, moist loam. They are easy to prune and spray, and need but little attention. In almost all local markets they find a ready sale, as for preserves, jellies, and canning we have no finer fruit. The fruits of all

ANGERS. A productive old sort, with rather acid fruit.

varieties are quite fragrant.

APPLE, or ORANGE. The best of the older varieties, still more extensively cultivated than any other. Its large, roundish fruits ripen in October.

MEECH. In some sections, this is a favorite sort, on account of its early bearing and great fruitfulness.

REA. This seedling of the Orange Quince has all the good qualities of that variety; its fair, handsome fruit is fully a third larger.

BOURGEAT. Fruits of the largest size, round, smooth, of bright golden color, with small core. With careful handling it keeps in a good cellar until spring. The tree exceeds all others in fruitfulness and sometimes bears when three or four years old.

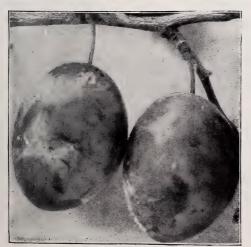
CHAMPION. A large, late-ripening sort, that produces good and constant crops. One of the best for sections not subject to early frosts.



MEECH QUINCE

PLUMS

Diseases of the Plum no longer appear formidable to the energetic orchardist. With only reasonably good care and culture the trees can be kept in a healthful condition and will produce fine crops of fruit. Annual sprayings with Bordeaux mixture keep away the leaf-blight and fungus, besides helping to prevent black-knot. Should the latter appear, clean and prompt cutting away and burning of all diseased wood,



GERMAN PRUNE

together with clean cultivation, hold it well in check. The thinning of too heavy crops of fruit prevents fruitrot. The curculio is destroyed by jarring the trees in
the early morning, when the insects are dormant. A
sheet is spread under the trees to catch the insects and
stung fruits, all of which are destroyed. The work
must be done daily, if the insects are numerous, for two
weeks or more after the bloom falls from the trees.
This sounds arduous, but does not take much time.

The market for high-grade Plums is almost unlimited Only high-grade trees can produce them. Only trees of highest grade are shipped from Painesville Nurseries.

European Plums

ARCHDUKE. A large, dark purplish Plum, so firm-fleshed as to be excellent for shipping; hangs well to the tree. A good late market sort. Early October.

BAVAY'S GREEN GAGE (Reine Claude de Bavay).

European Plums, continued

Large, round-ovate; green, marked with red in the sun; hangs long on the tree. One of the best foreign varieties. Late September.

BRADSHAW. Very large; dark violet-red; flesh yellow, juicy, good. A productive, valuable market sort. Middle of August.

DIAMOND. A superb and showy Plum of enormous size; dark purple, with thick bloom; vigorous, hardy, productive. September.

GUEII (Blue Magnum Bonum). Large, deep, bluish purple, with thick bloom; flesh yellow, coarse, but sweet and good. While still young the trees are loaded with enormous crops, most of which they carry to maturity; vigorous and hardy, growing fast. Profitable for market. Early September.

GERMAN PRUNE. A valuable Plum of fair quality for dessert, but most esteemed for drying and preserving. Large, long-oval, purple with a thick blue bloom; flesh firm, sweet and pleasant, separating from the stone. Moderate to vigorous in growth. September.

GENERAL HAND. Very large, deep yellow; flesh coarse, but sweet and good, parting from the stone. Tree stocky, producing heavily. Early September.

GRAND DUKE. A valuable late Plum, with large and showy violet-red fruits that are entirely free from rot; of fine quality. Grows moderately and produces well. A good sort for home or market. Late September.

IMPERIAL GAGE. Above medium size, oval, golden green; flesh juicy, rich, delicious, free from

stone. Tree of good growth and habit; productive. One of the very best Plums and very popular in some sections of the country. Mid-August.

ITALIAN PRUNE (Fellenburg). A handsome, oval, purple Plum, with thick, juicy, and delicious flesh, free from the stone. Fine for drying. Sept.

LOMBARD. Medium to large; dark red; flesh yellow, of pleasant flavor. The tree is unusually vigorous, succeeding well even on light soils, and produces heavy annual crops. More largely planted than any other Plum and most valuable as a market variety. Late August.

MARY. A very beautiful Plum of the highest quality. Of medium size, golden yellow, with a delicate white bloom; flesh thick, sweet and delicious. Of sturdy spreading habit, with glossy foliage; really ornamental. Bears annual and heavy crops. August.

MONARCH. Large, nearly spherical; deep purplish blue, with thin bloom; flesh pale golden green, juicy, pleasant, free from stone when ripe. Trees come into bearing young and yield abundant crops. We consider this one of the most valuable and profitable Plums. October, after Grand Duke.

MOORE'S ARTIC. Small to medium, with purplish black skin and thin blue bloom; greenish yellow flesh, juicy, sweet and fine-flavored. Tree is healthy, vigorous and a regular and abundant bearer. August.

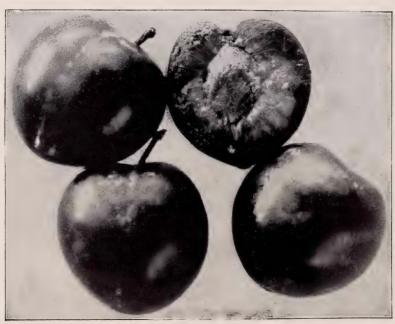
PEARL. A handsome seedling of the French Prune that for honeyed sweetness, flavor and fragrance is unequaled. The fruits are larger than

> French Prunes, somewhat flattened, appearing clear white and translucent under their heavy white bloom. Sept.

PETER'S YELLOW GAGE. Above medium size, oval, bright marbled yellow; very juicy and rich-fleshed. The tree grows and bears well, and is hardy in fruit and bud. August.

POND. A very large and showy English Plum of oval shape; light red, changing to violet; the yellow flesh is sugary, but rather coarse. Trees are vigorous and fruitful. September.

SHIPPERS' PRIDE. Quite large and showy, frequently 2 inches in



MONARCH PLUMS

European Plums, continued

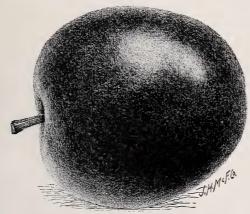
diameter, oval, dark purple, of Damson type. The flesh is sweet and firm, keeping and shipping very long distances well. September.

SHROPSHIRE DAMSON. This largest of the Damson class is much used for preserving. The trees are vigorous and enormously productive. One of the old favorites. October.

YELLOW EGG. (Magnum Bonum). This very large and beautiful egg-shaped yellow Plum is a great favorite for sweetmeats and cooking on account of its slight acidity. The flesh is yellow, slightly coarse, and clings to the stone. It is a splendid variety for nearby markets, and always brings a good price by reason of its beautiful appearance and superior merits. Late August.

JAPANESE PLUMS

The enthusiasm for this class of Plums continues to spread, some growers declaring that they pay better than any other tree fruits. They are important for the variety they add to our Plum list, and especially because so rich in very early kinds. The trees are strong and quick-growing, suited to all sorts of soils, seldom affected by black-knot, extra hardy, and bear full crops in two or three years after planting. When properly thinned, the fruits are marvels of size and beauty; firm-fleshed enough to resist stings of the curculio, to ship well and to keep for several weeks; delicious enough to tempt the most capricious appetite. From earliest to latest they cover a season of about three months. We offer a select list of the best sorts.



AMERICA PLUM

ABUNDANCE. Of medium size, large when thinned; amber, with markings of red; juicy, sweet, of good quality when well ripened. May be picked when it begins to color; will keep a long time, color well and be almost as rich and sweet as if ripened on the tree—a strong point for market growers. Usually the fruit must be thinned to prevent overbearing. August.

AMERICA. Larger than the average Japan Plum and much larger than our popular native sorts; golden yellow, with pink blush and white bloom; the flesh is moderately firm and of good flavor, keeping well. Tree bears young.

BARTLETT. Of medium size; dark red; flesh yellow, juicy, suggesting the Bartlett pear in flavor and fragrance. The tree is of strong, upright growth, spreading but little and usually fruiting the second season. Ripens before Burbank.

BURBANK. When properly thinned the fruit of this Plum is very large,—5 to 6 inches in circumference—nearly round and bright cherry-red, making it very tempting in appearance. Its deep yellow flesh is sweet, meaty and quite firm, keep-

ing and shipping finely. Tree vigorous and spreading; needs close pruning. Late August.

CHABOT. Of fine appearance and a splendidselling Plum. Above medium size; heart-shaped, yellow, almost covered with cherry-red and a thick white bloom; flesh yellow, firm, sweet, ripening late and keeping long. Tree vigorous, bears well. Early September.

CHALCO. Fruits large, flattened, almost stemless, surrounding the branches in thick ropes; skin violet-purple, covering sweet, firm, yellow flesh. Exceedingly productive. Ripens just before the Burbank.

CLIMAX. Abundantly productive of its very large, heart-shaped fruits, which are a deep rich red, fragrant, sweet-fleshed and fine in every way. One of the earliest of all Plums to ripen. The tree is strong, thrifty and hardy.

FIRST. One of the earliest of all Plums and very large and handsome. In color it is a pale yellow, slightly flushed with red and conspicuous light bloom. Good texture, sweet, juicy and well flavored. July.



CHALCO PLUM

Japanese Plums, continued

MAYNARD. Sturdy, strong and very rapid grower, with heavy, luxuriant foliage. It fruits heavily every year, not over-hanging, but yielding a full, satisfactory crop, bearing its burden of fruit on the inside of the tree. Fruit is very large, nearly round, color deep, dull red, thin whitish bloom. Flesh firm, melting and juicy, rich and sweet, extra fine quality. Its shipping qualities are unsurpassed. Ripe in July, following Climax.

OCTOBER PURPLE. Bears abundant crops of large, round, reddish purple Plums of good quality. One of the largest and strongest-growing Japan Plums. The best for late market.

RED JUNE. The great early market Plum. Medium to large; deep vermilion-red, with beautiful bloom; very showy; flesh light lemon-yellow, firm, slightly subacid, delightful; half-cling, with small stone. "Reliability of tree, size and beauty of fruit, its early ripening and long-keeping qualities make this Plum a prize-winner," says one of our prominent orchardists. Ripens in early August.



CHABOT PLUMS (see page 19)

SATSUMA (Blood). A delicious Plum for canning, already famous for that purpose, and a grand market sort; in season after the European Plums and the main crop of peaches are gone. Very large, nearly round, with deep red skin and flesh; firm, of good flavor; will keep from one to three weeks after picking. Yields well.

SHIRO. Very productive of medium-sized clear light yellow fruits, having a thin white bloom and firm, pleasantly acid flesh. Very hardy and vigorous; valuable for cold sections where some of the best sorts will not thrive. Ripens before Burbank.

SIMONI (Apricot Plum). Large, somewhat flattened, of peculiar shape and flavor; deep red, with firm, aromatic flesh. Not especially valuable. Aug.

SULTAN. A large, round and very handsome Plum that attracts attention anywhere by its size and beauty. Skin and flesh are a deep wine-red, the latter high-flavored, like the Satsuma, and just acid enough to be excellent for cooking and preserving. Keeps long and ships well. Tree a rapid and compact grower and yields heavy crops. August.

WICKSON. This largest of the Japan Plums is superb in every way. The color is bright cherry-red, covered with a light bloom; the pit is small for so large a fruit, the flesh is thick, sweet, tender and rather dry, indicating good keeping and shipping qualities. The yield from good Wickson orchards is very heavy, the fruit all large, with few seconds, and very little rotting. The fruit sells almost on sight. Large orchardists are planting this Plum by the thousand. September.

Improved Native Plums

In some sections these are the only Plums that are entirely hardy and sure to yield good crops.

DE SOTO. Of medium size, yellow, marbled red. One of the best sorts to plant among varieties needing pollination. September.

FOREST GARDEN. Large, round-oblong; orange-yellow, with red dots; flesh orange-color, juicy and good. August.

HAWKEYE. Large, light mottled red, with good firm flesh that markets well. September.

MILTON. Above medium size, dark red, flesh excellent. Productive; desirable. July.

POTTAWATTAMIE. Large pretty fruits of bright yellow, marked with pink and white dots. Even small trees load themselves with fruit. August.

ROBINSON. Yellow, nearly covered with light red; showy; ripens early. Productive; profitable.

WEAVER. Fruits large, purple, with blue bloom; flesh excellent. Bears well and regularly. August.

WILD GOOSE. Attractive red fruits of medium size, with sweet, juicy flesh. July.

WOLF. A perfect freestone of fine size. Unusually productive, vigorous and hardy. August.

WYANT. Large fruit with purplish red skin and firm flesh; freestone.



ALLEN CHERRIES (reduced)

CHERRIES

Cherries may be divided into four groups: Hearts, Bigarreaus, Dukes and Morellos. The trees are naturally hardy, succeeding best on dry soils, and may be trained to any form suited to conditions. In climates where the bark does not burst, the standard form, with four or five feet of clean trunk, is preferable for orchards. For dooryards, standards of erect varieties, with large foliage, are most suitable. For fruit gardens and for climates where the bark of Cherry trees is apt to burst, pyramidal trees, low standards, or dwarfs with branches only a foot from the ground, are best suited.

Hearts and Bigarreaus

Both Hearts and Bigarreaus are heart-shaped and very sweet; they are sometimes called "Oxhearts." The Heart Cherries have soft, tender flesh and are usually of dark colors. The Bigarreaus are firmer-fleshed and usually of light colors. Both sorts are more impatient of damp, soggy soils than even the Dukes and Morellos, but in suitable ones grow rapidly into large, pyramidal trees, with large, glossy leaves and heavy crops of fine fruit. They make good street and dooryard trees.

ALLEN. This superb variety originated within a few miles of our nurseries. Of fine size and appearance, glossy crimson-black; meaty, firm, sweet and delicious, it sells for the highest price paid for Cherries in market. Part of the fruit frequently ripens late and is marketed in August; so far it has been free from all rot and disease. Late July and early August.

BLACK EAGLE. Large, red-black, with tender, rich and juicy flesh of high flavor. Early August.

BLACK TARTARIAN. This fine old variety produces immense crops of very large, purplish black fruits of mild, sweet, jelly-like consistency. The tree makes a beautiful, erect growth. Late June and early July.

DIKEMAN. One of the latest of its class and among the best. Fine, large, meaty fruit of good

texture and very sweet. Splendid for shipping, as its keeping qualities are unsurpassed and it always brings good prices in market.

EARLY LAMAURIE. A fine dark purple Cherry, with rich, sweet flesh. Well adapted to the South. where it ripens as early as May 16. Earliest of all sweet Cherries. June.

ELTON. A large and beautiful early Cherry; pale yellow, with pink cheek. May and June.

GOVERNOR WOOD. A rich and delicious large, light red Cherry that hangs well on the tree. Very popular. June.

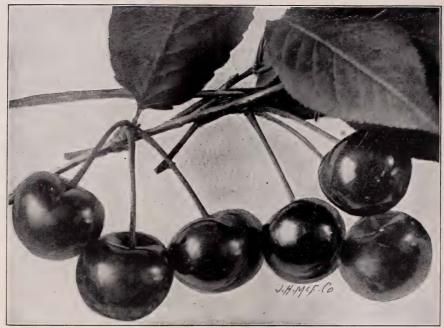
NAPOLEON. Of fine appearance and the very largest size; yellow and amber, with bright red blush; flesh firm, juicy, delicious. Profitable for market; finds a ready sale both for canning and dessert. Forms a grand tree. July.

ROCKPORT. Large, light red and amber; halftender, sweet and good. Late June and early July.

SCHMIDT'S BIGARREAU. Heavily clustered fruits of largest size, deep crimson black; tender, juicy, well-flavored. July.

WINDSOR. A splendid, large, liver-colored Cherry that hangs a long time and rots but little. The flesh is remarkably firm and good, the tree very hardy and fruitful. Exceedingly valuable for late market and home use. July.

YELLOW SPANISH. Large, pale yellow, with light red cheek; firm and delicious. Late June.



EARLY RICHMOND CHERRIES

Duke and Morello Cherries

These Cherries are quite distinct from the preceding sorts. They grow more slowly into smaller trees, with thicker leaves of deeper green. The branches of the Duke Cherries are sometimes strong and erect, but the Morellos are of slender, spreading growth. With a few notable exceptions among the Dukes, both classes have round, acid fruits. They succeed well in localities where the Hearts and Bigarreaus are too tender, and are much grown as dwarfs and pyramids on Mahaleb stock.

BALDWIN. Fruit very large, almost round, dark red, slightly subacid, the sweetest and richest of the Morello type. Remarkable for earliness, quality, vigor, hardiness and productiveness. Particularly profitable in the West. June.

DYEHOUSE. Similar to Early Richmond, but several days earlier. Largely planted for early market. June.

EARLY RICHMOND (English Pie Cherry). An exceedingly productive and reliable old variety, with dark red fruits of medium size and sprightly acid flavor. Unsurpassed for cooking. June.

EMPRESS EUGENIE. Large, dark red, with rich, juicy flesh. A thrifty, productive tree. Early July.

ENGLISH MORELLO. Large; dark red, nearly black; tender, juicy, acid, rich. Tree dwarf and slender. Valuable sort for near-by market.

LATE DUKE. This fine late Cherry has large, light red fruits. Of strong, upright growth. Last of July.

LARGE MONTMORENCY. Larger and finer than Early Richmond, and one of the finest flavored Cherries in this class. The strong, hardy tree makes rapid growth and bears enormous crops. Valuable for canning and preserving. One of our very best Cherries. Late June.

LOUIS PHILIPPE. Large and beautiful fruits of blackish red; flesh tender, mildly acid, good to best. Mid-July.

MAY DUKE. Large, dark red, juicy, rich; a superior and productive old sort that holds its own well against newcomers. June.

MONTMORENCY ORDINAIRE. Fruit large, red, quite handsome; ripens late in June. The tree is hardy and very prolific. A valuable market variety.

OSTHEIMER. Large, heart-shaped, nearly black when ripe, juicy and rich; fine for dessert and cooking; unsurpassed for market. Trees bloom late and bear fruit quite young. One of the most productive of all Cherries.

REINE HORTENSE. A French Cherry of great merit; the large, handsome bright red fruits are the mildest and sweetest in this class. Tree vigorous bearing good crops. July.

VLADIMIR. Of medium size, mildly acid, excellent. A hardy, fruitful Russian sort particularly adapted to northern growing. July.

WRAGG. Similar to English Morello, but said to be much hardier in tree. Valuable variety that originated in the West and has proved extremely productive and satisfactory wherever grown. July.

APRICOTS

Ripening as it does between cherries and peaches, the Apricot is a most welcome fruit, both tempting and delicious. The trees, as hardy as those of the peach, should be planted on a northern or western

exposure to prevent early blooming. They need the same treatment for curculio as the plum. We can supply the trees on both peach and plum stocks.

EARLY GOLDEN. Small; pale orange-color; juicy, sweet; tree hardy and fruitful. Early July.

EARLY LARGE MONTGAMET (Alberge de Montgamet). An especially fine Apricot, with large, round fruits of deep yellow, flushed with red. The flesh is firm, juicy and good. The tree is very hardy and produces heavily. Largely planted for market in New York and other states. Early July.

MOORPARK. One of the largest Apricots; orange, with red cheek; flesh thick and well flavored, parting from the stone. Very productive. August.

ROYAL. Large; yellow, with red cheek; rich and juicy. Late July.

Russian Apricots

This race is quite distinct from and hardier than European varieties. The trees begin to bear early and their yield is good. They are recommended for planting where other Apricots and the peach cannot be grown. The trees require about the same treatment as peach trees.

SUPERB. This variety excels in quality as well as in hardiness and productiveness. It has large, beautifully colored fruits, with rich, sweet and meaty golden yellow flesh; averages better in size



EARLY LARGE MONTGAMET APRICOTS

and quality than any other Apricot and bears more constantly.

Besides Superb, we offer also the following best three sorts: Alexander, Alexis and J. L. Budd.

MULBERRIES

These are sometimes classed among ornamental trees on account of their large, handsome leaves, dense shade, and fine, compact growth. All the kinds are productive; the everbearing sorts fruit for three months.

DOWNING'S EVERBEARING. One of the most prolific varieties, bearing an abundance of large, black, subacid fruits. It is extremely hardy and much planted all over the country. Its long bearing season makes it a universal favorite wherever grown. We guarantee our stock of this variety to be true to name.

NEW AMERICAN. This, also, is an everbearing variety and quite hardy. It bears fruits of the finest size and flavor from mid-July until Autumn.

RUSSIAN. On account of its vigorous, hardy habit, this tree is much planted for hedges, windbreaks, etc., in the western states. The fruit is of very little value.

WHITE (*Morus alba*). Valuable for feeding silkworms. Forms a beautiful, ornamental tree and used for its decorative effect.

BLACK (English). The tree is very ornamental and is fine for shade, bearing large, long, black fruits of good flavor.

Remember our firm and nursery names, "The Storrs & Harrison Co.," "Painesville Nurseries." We receive many complaints about goods sold as coming from "Lake Co. Nurseries," "Great Northern Nurseries," etc., Painesville, O. There are no such establishments.

NUTS

The constant and growing demand for nuts, and the immense quantities of them yearly imported to meet it have given a great impetus to the planting of nut-bearing trees. So palatable and wholesome are the nut-kernels that they should become a staple article of food here, as in Europe. The returns from established nut-bearing orchards, as well as numerous experiments, show plainly how successful nut culture may be made in America. Most farms contain land that would pay better planted in nut-bearing trees than in anything else; the nuts, in many cases, paying better than farm crops or fruits, while the trees are growing into valuable timber.

ALMONDS

HARD SHELL. The tree is very showy when in bloom. The kernels of the nuts are large, plump and sweet. Hardy.

SOFT, or PAPER SHELL. Encloses as fine a nut in a softer shell. Needs protection.

offer the following Spanish or European seedlings in strong, top-worked trees, recommending the varieties as the best of the improved seedlings yet introduced. Trees make beautiful ornaments on the lawn and are valuable as shade trees.

NUMBO. Nuts quite large and of fine appearance, sweet and early to ripen. Tree enormously produc-

tive, bearing regularly.

PARAGON. (Great American). The most widely planted and most uniformly successful variety yet cultivated in the United States. The three or more broad, thick, handsome nuts in each bur are of extra size and quality. The tree makes a strong growth, bears early and abundantly. Trees four years from graft have produced one bushel each.

RIDGELEY. The nuts of this variety are large, smooth, of uniform size and fine, rich color, in quality equal to nuts of the best American seedlings. The nuts always bring very high prices in market and on the stands. They ripen early and are produced in heavy crops. The trees make a strong, handsome

high prices in market and on the stands. They ripen early and are produced in heavy crops. The trees make a strong, handsome growth and begin bearing before they are taken from nursery rows.

SCOTT. Produces splendid crops of large, beautiful, mahogany-colored nuts, almost free from fuzz and of good quality. Roasted or boiled, the nuts are of splendid flavor. So far has been almost free from chestnut-weevil. Midseason.

Japanese Chestnuts

This race has many good points to recommend it to the planter: Productiveness and early-bearing habit, the large size and beauty of the nuts, their freedom from worms, the good quality of nuts from American-grown seedlings and from the imported



SPANISH CHESTNUT TREE

CHESTNUTS

AMERICAN SWEET. The nuts of this tree form quite an item in our commerce. Although smaller than some other sorts, they are sweeter and more delicately flavored. This Chestnut is also a grand timber and ornamental shade tree, spreading, in midsummer, billowy masses of creamy fragrant catkins above its large, deep green leaves, making a most beautiful specimen on the lawn.

SPANISH. A handsome, round-headed tree, producing abundant crops of very large nuts that sell readily for good prices. The crop of a single tree has sometimes brought \$25. Not so sweet as the American in nut, and not so hardy in tree. We

Japanese Chestnuts, continued

seedlings here offered, their beautiful semi-dwarf habit, and their freedom from leaf diseases. Besides good unnamed seedlings we offer the three named varieties found most valuable.

ALPHA. The earliest of all and very large, the nuts being 4 inches in circumference and running two and three to a bur. Ripen the early part of September without frost. Tree is an upright, vigorous grower and begins to bear when very young.

EARLY RELIANCE. The nuts of this variety are very large, smooth, and of attractive, rich brown. They sometimes measure 4 inches in circumference and are crowded from three to five in the bur. The tree is dwarf and spreading, enormously productive of its great burs, one-year grafts being frequently loaded down with them. September 18 to 20.

PARRY'S GIANT. One of the largest and most beautiful of this group. The nuts measure 6 to 7 inches in circumference, and there are usually two in the bur; they are smooth, dark and attractive. The trees make a neat, sturdy growth, and bear heavy crops. Late September.

FILBERTS (Hazelnuts)

The Filbert succeeds well on almost all soils, the little trees or bushes bearing early and abundantly. See page 64 for Hazel used as an ornamental shrub.

ENGLISH. Most hardy and generally satisfactory over a wide territory. The nuts are nearly round, rich-flavored and toothsome.

KENTISH COB. The larger of the two varieties, meaty and of excellent flavor.

HICKORY

SHELLBARK. In flavor and quality of kernel this is generally esteemed the choicest of our native nuts,—of all nuts, some experts have said. The tree is a handsome, stately shade tree, with tough white wood of great strength and elasticity, marketable at high prices.



PECAN. This species of the Hickory may well rank first among our native nuts in value and cultural importance. The trees grow fast, are reasonably precocious in development and bearing,

and produce large crops of thin-shelled nuts that are full-kernelled and delicately flavored. These nuts are already quite a factor in commerce, growing in importance yearly in the southern and middle states, where hardy Pecan orchards yield handsome profits.

WALNUTS

AMERICAN BLACK. The large, oily nuts are borne in heavy crops. They are much relished by children, and always marketable at a fair price. The tree grows quite fast; its dark rich wood is exceedingly valuable.



SIEBOLD'S JAPAN WALNUT

ENGLISH, PERSIAN, or MADEIRA. A fine, lofty-growing tree, with handsome, spreading head; produces large crops of thin-shelled, delicious nuts which are always in demand at good prices. The large orchards of California and the South are yielding handsome profits, and still the nuts are imported in great quantities. Not hardy enough for general culture North.

ENGLISH, or PERSIAN DWARF PROLIFIC. (Præparturiens). A dwarf variety of the above that begins to bear when quite young, and yields heavily.

SIEBOLD'S JAPAN. Of the finer imported Walnuts this is the species best adapted by its hardy, vigorous habit for general culture in our country. It grows with great vigor, assuming a handsome shape without pruning, and has withstood a temperature of 21° below zero without injury. Its nuts are considerably larger than the common hickory-nut, and borne in clusters of fifteen to twenty. The shell is a little thicker than that of the English Walnut, which it resembles in a general way; the kernels are meaty, delicate, and can be removed entire. The trees begin to bear when two or three years old.

JAPAN CORDIFORMIS. Differs from the above chiefly in the form of the nuts, which are broad, pointed and somewhat flattened. The kernels are large, sweet, and easily removed from the shell.

WHITE, or BUTTERNUT. The nuts are large, long, oily and nutritious. The lofty, spreading tree is one of our finest natives, valued for its tropical appearance and beautiful wood, as well as for its nuts.

Vines and Bush Fruits

HARDY GRAPES

Even under unfavorable conditions the grape-vine will bear fruit, but good culture, pruning and spraying repay the planter well, if the best quality of fruit is desired. No part of the fruit garden yields a richer harvest than the vineyard. Along almost any garden fence or walk there is room for vines enough to furnish luscious grapes from July to November. In such situations they may be planted about 8 feet apart. In vineyard rows, set the vines 6 to 10 feet apart, with 6 feet of space between the rows. Paper bags slipped over the clusters as soon as they have formed are a good protection from fungus, insects, birds, etc.



CAMPBELL'S EARLY GRAPES

Black, or Purple Grapes

CAMPBELL'S EARLY. This superb new Grape is fulfilling the promises made for it remarkably well. It forms large and handsome clusters thickly set with large, round berries, covered with a light purple bloom; these are firm-fleshed enough to keep and ship admirably, but the tender pulp parts readily from the few small seeds, a quality that is now greatly appreciated; the flavor is rich, sweet and delightful. The clusters ripen very early and hold their berries well, keeping in fine condition for a month or more. The vine is vigorous and bears abundantly. Should be widely planted.

CHAMPION. Valuable where the seasons are short, chiefly for its earliness. Of medium size in Grape and cluster. Skin thick, quality poor.

CONCORD. The fine old market leader, with large, handsome clusters of large, luscious Grapes. Entirely hardy, productive and reliable; succeeds

well over a great extent of country. One of the best known Grapes grown. September.

EARLY OHIO. A profitable early market Grape, with excellent shipping qualities; has strong, thrifty, hardy vines.

EATON. So large in both cluster and berry as to be very showy. Its clusters sometimes weigh thirty ounces and its berries measure an inch in diameter. They are round, thick-skinned, covered with a fine purple bloom, very juicy, with some pulp.

HARTFORD. Has large, globular, almost black berries in rather large bunches; flesh sweet and juicy. A favorite on account of its hardiness and early bearing.

IVES. Clusters and berries are of medium size; dark purple; sweet and pulpy, with some foxiness; should hang on the vines a while after coloring.

MOORE'S EARLY. Clusters of medium size; berries large, round, black, with heavy blue bloom. Desirable for market on account of its earliness; well suited to Canada and northern portions of the United States by its hardiness; succeeds admirably in the South also.

WILDER. Clusters very large, compact, shouldered; berries very large, round, with sweet, tender, sprightly flesh. A vigorous, productive sort that ripens with Concord.

WORDEN. A seedling of Concord, but larger in bunch and berry, of better flavor, earlier, as hardy and healthy in every way, producing fine crops that command good prices. A very superior Grape that deserves to be a market leader.

Red, or Amber Grapes

AGAWAM. Berries quite large, with thick skin, compactly set upon a large bunch; soft, sweet and sprightly; ripens early. Grows and bears well.

BRIGHTON. Bunches large and well-formed; berries medium to large, of good flavor and quality. An excellent early Grape, ripening with Delaware.

CATAWBA. An excellent table and wine Grape with large, round berries, rather loosely set on clusters of good size; when fully ripe they are a dark copper-color, with a sweet, rich, musky flavor. Requires a long season.

Red, or Amber Grapes, continued

DELAWARE. A choice native Grape of free and hardy, but slender growth, that deserves a place in every vineyard or garden. Bunches and berries are small, but compactly set, light red, with violet bloom; sugary and delicious. A favorite dessert Grape; one of the earliest to ripen.

LINDLEY. Of fine color and quality, with bunches and berries of medium size, borne in good crops on a vigorous, healthy vine. One of the best red Grapes. Ripens with Concord and keeps as well.

REGAL. One of the hardiest red Grapes known, it having endured 30° below zero without injury. It is also one of the most productive and ripens a heavy load of fruit each year. Some years ago a two-year-old vine ripened 18 clusters the next year after planting and 114 clusters the year following. The bunch is of good size, compact and handsome. The berries large, persistent, translucent dark red and juicy, with a skin thin but tough, making it an admirable shipper. The pulp is tender and frees its seeds easily.

SALEM. Bunches and berries large, coppery red; flesh tender, juicy, with slight pulp, of the very best quality; vine vigorous and fruitful. Ripens with Concord.

VERGENNES. Berries large, round, somewhat loosely set on bunches of medium size; skin thick and tough, making it a good keeping sort; flesh quite pulpy and of pleasant flavor. Ripens with Concord.



REGAL GRAPES



WOODRUFF GRAPES

WOODRUFF. A handsome and profitable market Grape, with large light red clusters and berries of good quality. Ripens early, with Delaware, keeps long and ships well. The vine is an ironclad in hardiness, makes a healthy, vigorous growth and bears good crops. Best red market Grape for main crop.

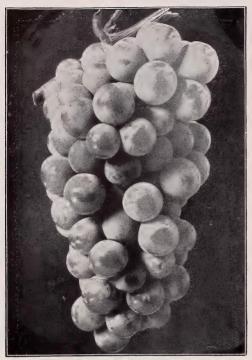
WYOMING. One of the most beautiful of the red or amber Grapes, brighter colored than Delaware, earlier, nearly twice as large; flesh tender, juicy, sweet, with a strong, native aroma. The vine is hardy and healthy, with thick, leathery foliage. The best of the red Grapes for early market.

White Grapes

DIAMOND. A seedling of Concord and has the same sturdy qualities of vine, but ripens its fruit several weeks earlier. Its berries are about the same size, smooth, with no brown dots and few seeds; they are juicy, sweet and almost free from pulp.

EMPIRE STATE. Very large bunches composed of medium-sized berries; juicy, rich, sweet and sprightly. Holds its color and flavor a long time.

GREEN MOUNTAIN (Winchell). The earliest of the White Grapes and also one of the most valuable, combining hardiness, fruitfulness, good size and excellent quality. Both berry and cluster are of good size; the flavor is as fine as that of any Grape in cultivation. Its earliness ensures its ripening, even in the worst of seasons.



NIAGARA GRAPES

White Grapes, continued

MARTHA. Of medium size in bunch and berry; flesh somewhat pulpy, a little foxy, but good. Hardy and productive. Earlier than .Concord.

NIAGARA. Home and market growers seem to agree that this is the most valuable of all the white Grapes. Its clusters are large and handsome, compactly filled with large berries having a thin, but tough skin. When fully ripe, they are a fine, pale yellow, with a thin white bloom, and the foxy aroma of an earlier stage has almost disappeared; the flesh is slightly pulpy, tender, sweet and delightful. The vine is remarkably vigorous and productive. Ripens with Concord.

POCKLINGTON. Clusters and berries large, light golden yellow when fully ripe; sweet and tender, with little pulp. Thoroughly hardy and healthy; bears well in favorable seasons and locations. Ripens after Concord.

GOOSEBERRIES

The Gooseberry and currant are two of the hardiest types of bush fruits. Our native forms range far north into British America. Seedlings of these natives are also very hardy, as is shown by some of the choice hybrids with European sorts. All Goose-

berries like a cool, moist loam and either partial shade or a good mulch through summer. A good top-dressing every year is also necessary.

American Gooseberries

These are characterized by extra hardiness, vigor and freedom from mildew, enabling them to succeed well where the larger-fruited and tenderer English sorts succumb to disease. Prune closely every spring.

CARMAN. One of the largest and finest Gooseberries ever introduced, a seedling of one of the large

English berries crossed with an American sort. It is of a beautiful golden yellow and oval in shape. The plant sets the fruit so closely that it is necessary to thin it severely, and then every branch has to be propped up. It is as near mildew-proof as any berry we have ever seen, and we can honestly recommend it as one of the very best and most profitable Gooseberries to plant.



CARMAN GOOSEBERRIES

American Gooseberries, continued

COLUMBUS. Berries of the largest size, pale yellow, of finest flavor. Bush strong and free from mildew. A near approach to the ideal Gooseberry that shall equal English sorts in size and beauty of fruit, while meeting in habit of bush all requirements of our less favorable climate.

DOWNING. A large and handsome pale green berry of splendid quality for dessert or cooking. The bush is robust and seldom mildews. An excellent sort for family use and quite profitable for market.

HOUGHTON. An enormously productive and always reliable old sort; of vigorous yet rather slender, spreading growth, not subject to mildew. Fruits of medium size, smooth, pale red; tender, and good.

JOSSELYN. Large, smooth; of good flavor; the bush very hardy, with clean, healthy foliage, and bears fine crops of bright red fruit. The one large Gooseberry that can be planted with entire confidence.

PORTAGE. Almost as large as Carman and fully as prolific. Of a bright yellow and one of the handsomest berries we have ever seen. It also has the valuable advantage of being almost free from mildew, It originated in Ohio, and we have tested it more than ten years, and every year it has responded nobly, assuring us that it is one of the very best of the American Gooseberries.

SMITH'S. Large, pale yellow, thin-skinned; of excellent quality for dessert or cooking. Bush moderately vigorous and exceedingly fruitful. Where conditions are favorable, a valuable sort.

English Gooseberries

The English Gooseberries require but little pruning. Their fruits are larger and showier than American sorts, their bushes tenderer and more subject to mildew. Given cool, moist situations in partial shade, rich soil and heavy mulches, they yield fine crops of beautiful fruit.

CROWN BOB. Large, round-ovate, red, hairy fruits of the first quality.

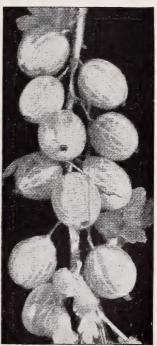
INDUSTRY. Fruits large, oval, dark red, hairy; beautiful and of the best quality. Less subject to mildew than other foreign kinds and perhaps the best of them for our climate. Where left long, the strong, upright canes are full of fruit to their very tips.

KEEPSAKE. The blossoms of this variety are well protected by foliage, so that it is sure to set good crops in any ordinary season. The berries are very large, pale yellow, of good flavor and ship

well. Quite productive.

LANCASHIRE LAD. Fruits smooth, bright red, of unusual size and beauty and of fine dessert quality. The bush is strong and fruitful. Among the best and largest of English varieties and very valuable for market.

WHITE-SMITH. A splendid oval berry, yellowish white in color and covered with a soft down. It is extremely large and of the finest quality.



PORTAGE GOOSEBERRIES

CURRANTS

Currants are perfectly hardy and may be planted in fall or spring. They succeed best on cool, moist soils, well tilled and well enriched. In warm climates a northern exposure suits them best. Plant the bushes about 4 feet apart and cultivate well, or mulch heavily, sprinkling ashes around the roots occasionally to keep out borers. If the Currant-worm appears, dust with hellebore. Prune out the old wood that has ceased bearing.

BLACK CHAMPION. Produces large crops of excellent fruit.

BLACK VICTORIA. A new English variety of exceptional merit; the largest black Currant in cultivation. Makes a neat strong bush of unfailing productiveness. The berries are of extraordinary size and of good flavor.

CHERRY. Very large berries on short clusters; a robust, fruitful sort.

COMET. The clusters are frequently 8 inches in length, with twenty or more berries of enormous size and brilliant crimson color. The juice is without acidity and particularly refreshing, so that this is likely to become a valuable fruit for dessert purposes. It will hang a long time in good condition; the first picking has been made June 10, the last as late as August 22. The growth is wonderfully vigorous.

Currants, continued

FAY'S PROLIFIC. The leading market Currant. Rich red berries, as large as those of the Cherry Currant, of better flavor, less acid, long-stemmed and easily picked. The demand usually exceeds the supply.

LA VERSAILLAISE. A French sort, with large, long red clusters of great beauty. A fine old sort of extra productiveness.

LONDON MARKET. A particularly valuable variety for northern climates, as it is planted extensively in Michigan, and is regarded as one of the very best for that state. The plant is extremely hardy and vigorous and retains its foliage throughout the season. Beautiful in color, large in size and a very heavy cropper. Ships well, and is excellent for market either near or distant.

PERFECTION. In color it is a beautiful, bright red, and of a size larger than the Fay; the clusters

average longer and the size of the berries is maintained to the end of the bunch. It is one of the most productive Currants we have ever known, and in quality it is superior to anything in the market, being of a rich, mild, subacid flavor and having plenty of pulp with few seeds.

POMONA. Deserves prominence for its splendid market qualities. The fruit is of good size and flavor, bright red, long-stemmed, hangs in fine condition long after ripening, ships and markets well. The bushes bear early and have an unparalleled record for actual acreage yield.

RED DUTCH. Has clusters much larger and less acid than those of the ordinary red. A fine, fruitful old sort, and one of the old favorites for home use or market.

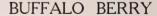
VICTORIA. Erect-growing, heavily laden, even into September, with long, handsome clusters of large, bright red fruits. Its late season adds greatly

to its value.

WHITE GRAPE. Excellent for dessert use because of its mildly acid flavor and large, handsome clusters of golden green or white berries. Fruitful.

WHITE IMPERIAL. Mildly acid and pleasant-flavored; clusters larger and longer-stemmed than those of White Grape; the richest and best of Currants for dessert use. Productive.

WILDER. Red, with large, fine-flavored fruit of a bright, attractive color, even when overripe. Few varieties equal it in the two essential qualities of productiveness and long-keeping.



For many years the Buffalo Berry (Shepherdia argentea) has

been grown mostly as an ornamental shrub, but of late years its value as fruit has been recognized, until today in sections where currants will not thrive it is depended upon for fruit of that nature. It is one of the strongest bush fruits known and readily adapts itself to all kinds of untoward conditions. The berries are borne in dense clusters along the stems, which are armed with numerous small thorns. There are two forms, one bearing red fruit and the other yellow, both of which are used in great quantities, particularly in the West, for canning, preserving and jellies. The fruit is much like the currant in appearance, of a sprightly acid flavor. The bush is distinctly ornamental and can be used with success as a hedge plant, as it stands shearing into almost any shape and grows dense down to the ground



PERFECTION CURRANTS



HAYMAKER RASPBERRY

RASPBERRIES

All except the blackcap Raspberries may be planted either in the spring or fall, 3 feet apart in rows 5 to 7 feet apart. To keep the rows in good bearing condition, old wood must be cut away as soon as it has fruited, to give vigor to the young canes. Thin the suckers every spring to five or six of the strongest in each hill, keep free from weeds and top-dress with some good fertilizer. Blackcaps can be planted only in the spring. Pinch back blackcaps early, or when the young canes are about 2 feet high, to keep the bushes snug and compact, and to obviate staking. Clean mellow culture is beneficial to both varieties of Raspberries, and mulching, both in summer and winter, is of decided benefit to them.

COLUMBIAN. This variety ranks very near the top for amazing productiveness, vigor and the quality of its very large, dark red fruits. The bush is very hardy and grows to such great size that it requires extra room. Unexcelled for market and all culinary uses.

CUTHBERT (Queen of the Market). This superbold variety endures northern winters or southern summers with equal vigor, and produces fine crops of large, conical, deep red fruits even in the cotton belt, where so many other sorts fail. Its berries are sweet, rich, high-flavored, as beautiful as strawberries, and so firm that they are shipped hundreds of miles in good condition. Certainly one of the finest market berries. Season medium to late.

CUMBERLAND. A mammoth midseason black-cap that loads its stout, stocky canes with hand-some fruit. Its great glossy berries outsell all others of their season, are firm enough to ship well, and of good quality. In hardiness and productiveness, among the best.

EATON. A new red Raspberry, entirely distinct from all other varieties. In character of growth, in size, color, firmness, quality and yield of fruit, in length of season, and in all strong points it is one of

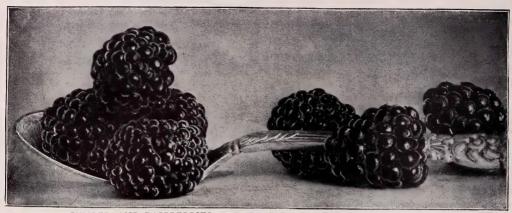
the best. A strong, sturdy grower, throwing out many laterals and fruiting to the tips and from every lateral,—a sight to see. An immense cropper, while the fruit is extraordinarily large and handsome, firm and of the highest quality. The fruit is larger than the Loudon, a deeper, richer red when fully ripe, and of sprightly, exquisite flavor.

GOLDEN QUEEN. Large, beautiful fruits of a pale amber-color; firm and delicious. The canes are hardy, of strongest growth and wonderfully productive, A very superior dessert fruit. Succeeds in all sections.

GREGG. For many years the leading blackcap for market. Its large, showy berries are produced in great abundance, are firm, and ship finely. Midseason.

HAYMAKER. An Ohio seedling of the tall, strong-growing Columbian type, with berries similar in color, size, and texture, but a little more acid, and produced in even heavier crops.

HERBERT. A seedling originated by Mr. R. B. Whyte, Ottawa, Ont., Following is the originator's description of it: "The Herbert is the best of 30 seedling Raspberries fruited during the last 14 years, and after careful comparison with all the leading



CUMBERLAND RASPBERRIES, as compared with Snyder Blackberries (see page 31)

Raspberries, continued

varieties I can confidently say that it is very much superior to any of them. In hardiness it easily takes first place, standing a lower temperature than any other kind. The cane is very strong and vigorous, slightly prickly, leaves large and healthy, and has never been affected by Anthracnose, or disease of any kind. Fruit bright red, somewhat oblong, the largest of all red Raspberries, larger than Cuthbert or Loudon. Flavor very sweet and juicy, the very best for table use. Enormously productive, will bear twice the crop of either Cuthbert or Loudon, under the same conditions. Season five to six days before Cuthbert. This Raspberry holds its size well to end of season."

KANSAS. A valuable second-early blackcap, so

strong and hardy as to endure extremes of cold and drought, and yet bear heavy crops. The berries are large, showy, firm, of best quality, selling for the best prices. One of the best on our grounds.

KING. Several of our best fruit-growers consider this the best of the early red Raspberries. It has large and attractive bright red fruits of good flavor, ripening with the earliest and firm enough to ship nicely. In hardiness, growth and productiveness all that could be desired.

LOUDON. This variety is a marvel of productiveness and hardy to the tips of its shoots. Its large and beautiful rich dark crimson fruits are of good flavor, ship better and hang longer after ripening than those of any other variety. The best red midseason berry.

MARLBORO. A profitable early market berry, with large, light crimson fruits of good quality and firmness. Very hardy and well suited to the North.

PALMER. This blackcap is the first Raspberry to ripen, yet its berries are of good size and flavor. The canes are wonderfully fruitful and quite hardy.

Being so early, it always commands good prices in the market.

RUBY. Originated at Marlboro, N. Y., and is shipped daily from there to the Boston market through the season. Ripens with the earliest, continues a long season. Fruit large, bright red, exceedingly firm, excellent quality. Strong grower, large, hardy canes.



HERBERT RASPBERRIES (see page 31)

IMPROVED DWARF JUNEBERRY

Like the oleaster, this belongs to both ornamental and fruit gardens. Its large white flowers and dark shining leaves make quite a pretty little bush that sturdily endures heat, drought and cold. Its clusters of purplish fruits resemble whortleberries and are pleasantly acid. They are quite acceptable either for dessert or canning and preserving.

BLACKBERRIES

For garden culture, plant 4 feet apart in rows 5 feet apart; for field culture, plant 3 feet apart in rows 6 feet apart. Pinch back canes when 3 or 4 feet high, and allow but three canes to the hill. Give about the same treatment as raspberries.

ANCIENT BRITON. Well adapted by its great hardiness for planting in all sections subject to severe winters. The strong, healthy canes are heavily laden with sweet, melting berries of medium size. Markets well.

BLOWER. Originated in the celebrated small-fruit belt of Chautauqua county, N. Y., where it has been thoroughly tested for several seasons. Claimed to be the hardiest, most productive, the finest quality, and to bring on the market the highest price of all Blackberries. Has produced 2,694 berries on one bush, 2,720 quarts on one-third of an acre. Large size, jet-black, good shipper, best quality, unexcelled productiveness are the main characteristics of this splendid new sort.

EARLY HARVEST. Dwarf, very early, quite productive of sweet, medium-sized berries. Needs protection in the North.

ELDORADO. The vines are very hardy and vigorous, enduring the winters of the far Northwest without injury, and their yield is enormous. The berries are large, jetblack, borne in large clusters and

ripen well together; they are very sweet, melting, have no hard core and keep for eight or ten days after picking with quality unimpaired.

ERIE. Berries large and nearly round, appearing thus even larger than they really are; of good quality. The canes are strong, with healthy foliage, hardy, free from rust, supporting heavy crops of fruit. Ripens between Early Harvest and Wilson.

KITTATINNY. Large, fine berries of good quality; canes strong, erect, fruitful.

MERSEREAU. Remarkably strong grower, upright, producing stout, stocky canes. Claimed to be the hardiest Blackberry, standing uninjured 20° below zero without protection. An enormous producer of extra-size berries, which are brilliant black and retain their color; extra quality; sweet, rich and melting, without core. Ripens very early.

MINNEWASKI. Berries large, juicy, sweet. Remarkably productive and hardy. Ripens early.

OHMER. As large as the largest, of best quality, as hardy as any good berry and very productive. A valuable late market sort.



ELDORADO BLACKBERRIES

RATHBUN. Of very large size, resembling Wilson, and fully its equal. The berries are sweet, luscious, have no core, and are firm enough to ship and handle well. The canes make a strong, erect growth, yielding fine crops.

SNYDER. Berries of medium size, sweet, melting. Very hardy and wonderfully productive. Valuable for cold climates, as it leads where hardiness is a consideration. Early.

TAYLOR. A good succession for Snyder in cold climates. Ripens its large, luscious berries some weeks later. Vigorous, hardy, fruitful.

WARD. Originated in New Jersey. A seedling of Kittatinny, which it resembles, having all of its good qualities and none of its defects. Healthy, strong grower, with sturdy canes producing fine, large fruit, black throughout, without core, and of excellent quality. An exceedingly prolific sort, the bushes being covered with its fine fruit.

WILSON. A very superior, large, early berry, of sweet and excellent quality. Strong-growing, amazingly fruitful, very early to ripen.

THE LUCRETIA DEWBERRY

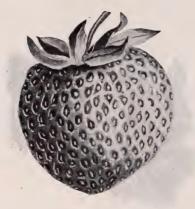
In size and quality this low-growing or trailing blackberry equals any of the upright sorts. Its berries ripen before raspberries are gone, are large, soft, sweet and luscious throughout, with no hard core. The vine is perfectly hardy, healthy, and exceedingly fruitful, with large, showy blossoms. May be grown over walls, trellises or rocky slopes, where there is no room for the other berries.

STRAWBERRIES

In ten or twelve months after planting, Strawberries may be depended upon to give fair returns in delicious fruit. They can be made a success on almost any soil that is well fertilized and well cultivated. Early spring is the best time for planting. Set the plants 12 to 18 inches apart, in rows 2½ to 4 feet apart, according to soil conditions and the variety of the plants. At the end of the season they will form narrow, matted rows, with plants 5 to 8 inches apart. This will give more and better berries than thickly matted rows where all the runners are allowed to root. A mulch of leaves or straw applied after the ground freezes in winter will be beneficial. Before growth starts in spring, remove the mulch to the edges of the rows and it will help to keep the fruit clean and the soil moist through the fruiting season.

The soil in our nurseries is well adapted to the development of strawberry plants, giving us fine crowns and root-clusters much larger than are usually sent out. Our stocks are cultivated entirely for the production of plants, are kept pure, carefully graded, handled and packed.

Varieties marked with a star (*) are pistillate or imperfect flowering. When staminate or perfect-flowering sorts are planted near them they are often the heaviest bearers of all, but unless these varieties are near enough to furnish pollen they will not yield much fruit. All unstarred sorts are perfect-flowering.



BRANDYWINE STRAWBERRY

BRANDYWINE. One of the very reliable fruiting sorts that can be depended upon for heavy crops on a variety of soils. Berries very large, broadly heart-shaped, bright red to the center; firm-fleshed and finely flavored. A valuable late berry.

*BUBACH. A sterling old sort that combines many excellent qualities: great and uniform size, rich color and quality, extraordinary vigor and fruitfulness, fine foliage that endures the hottest suns. Season early to medium.

*CARDINAL. A late introduction which has leaped into popular favor by the sheer force of its intrinsic merits. From all places where it has been tested comes nothing but words of the highest praise, and it is the one berry of recent years which has nearly attained perfection. It is of a very brilliant scarlet, exceedingly large, and of the sweetest, most delicate flavor. It is one of the most prolific berries grown, and a remarkably good shipper.

GANDY. Large and firm berries, of uniform size and shape. On heavy rich loams the plant is a marvel of vigor and fruitfulness. The best shipping long-keeping Strawberry, as late as the latest of well-tested sorts.

GLEN MARY. Large to very large, sometimes flattened; sweet, rich, delightful. Plants vigorous, extra-fruitful of fine berries that hold their size to the end of the season.

*HAVERLAND. Very productive of medium to large conical berries that are smooth, regular, mildly subacid. Pollinated with some highly productive perfect-flowering sort, it yields enormous crops of superb berries. Early and one of the most valuable market sorts.

JESSIE. Berries large, handsome, dark red. The plant is vigorous, healthy, with strongly staminate blooms; a good pollenizer for imperfect-flowered sorts.

MARSHALL. Berries very large, handsome, highcolored; of extra quality. With high culture the strong, healthy plants produce great crops. Early.

MICHEL'S EARLY. One of the earliest varieties, conical in shape and of excellent quality. Very resistant to frost, drought and rust and one of the best for fertilizing the pistillate varieties.

NICK OHMER. A fine, fancy market berry and always superb for the table. A giant in size; it is yet deep red all through, globular, high-flavored, delicious. In healthy vigor and fruitfulness unsurpassed by any other sort.

PALMER. A new first-early sort that promises to lead the market. Its berries ripen before those of Excelsior or Johnson's Early, are long-conical, dark red, and of delicate, delicious quality. It

Strawberries, continued

leads in productiveness also, outyielding all other berries of its season.

RYCKMAN. One of the largest-growing, heaviest-rooted, strongest plants among Strawberries. Long fruit-stalks, holding fruit well up above ground. One of the very largest berries, ripening early, beautiful light red, without white tip, conical shape, fine flavor. It is in the front rank of strictly big berries.

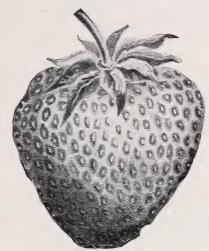
*SAMPLE. A strong plant that succeeds well on nearly all soils and yields astonishing crops of uniformly large, fine berries, pointed, conical, rich scarlet, firm and of fair quality. A money-maker for the market-man and destined to become one of the standard sorts for all sections. It is being planted in immense quantities.

SENATOR DUNLAP. A large, regular, and attractive berry, deep red in color and exceedingly firm in substance and excellent in quality. One of the very early sorts and continues in bearing nearly a month.

*WARFIELD. Great beauty, firmness, earliness, productiveness and vigor make this berry most popular. Ripens with Crescent and is superseding

it for canning, distant shipments and general marketing.

WM. BELT. Berries very large, conical, bright red, of good flavor. The plant is strong, healthy, and very fruitful. Season medium to late.



HAVERLAND STRAWBERRY

ASPARAGUS AND RHUBARB ROOTS

These first fruits of the garden are well appreciated everywhere, but the supply of them is usually inadequate. Borders and beds of the plants are common in many gardens; they are usually weedy and neglected. A better way to grow both family and market crops is to set the roots 15 to 18 inches apart in rows, so that horse and cultivator can do most of the work. Spread the roots of Asparagus out well, firm the soil about them and leave the crowns about 2 inches below the surface of the soil.

Cellar-grown Rhubarb, with beautifully pink, tender stalks two or more feet long, can be enjoyed in March by any one who will devote a little time to it; it also brings fancy prices in market, for the open-air crop is less tender and attractive, besides appearing six weeks later. For this crop the plants are grown from spring till fall in very rich soil, so as to establish a number of crowns on each root. In fall a number of roots are packed solidly together, with rich soil in the interstices, in some cool, dark cellar. After their crop has been cut, the roots are replanted in the garden to regain vigor for the next year's forcing.

Asparagus

COLUMBIAN MAMMOTH WHITE. Produces numbers of great, thick white shoots. Most attractive and profitable for canning.

CONOVER'S COLOSSAL. Really colossal, deep green shoots, from 1 to 2 inches in diameter are sent up thickly from the crowns.

GIANT ARGENTEUIL. A new French variety that makes crowns strong enough for cutting before any other sort and yields enormous crops of mammoth, tender stalks.

PALMETTO. In great markets this Asparagus sells at top prices, on account of the great size and beautiful appearance of its stocks. Some years it is on the market ten days before the other sorts.

Rhubarb

LINNÆUS. Leaf-stalks large, tender, juicy, produced quite early.

QUEEN. The extra-large, tender stalks are a decided pink color, and delicious for canning or cooking. A very strong-growing sort.

SEEDS

We keep in stock a very complete assortment of Vegetable and Flower Seeds, handling only fresh, tested stocks of high germinating power. A complete catalogue of these seeds is issued about January 1. Free to all planters.

Our small fruit bushes and plants have always had the reputation of being the best of their respective classes, and it is our constant aim to keep them up to it.



HARDY ORNAMENTAL TREES

For Lawn and Landscape

A LEADING SPECIALTY with us, from the founding of our nurseries, has been the cultivation of flardy Ornamentals. Our soil and climate are particularly suited to their growth, our force of experienced and successful propagators, and our long experience in growing, handling and packing all stocks of this class give us confidence in our ability to suit the most critical buyers. We, doubtless, have more acres devoted to the production of hardy trees, shrubs, roses, perennials, vines, etc., than any other establishment in the United States.

NEW VARIETIES are being constantly tested. We shall offer and recommend only such as are distinct and distinctly better than varieties already cultivated.

The uses of trees are manifold: To furnish the masses of foliage which frame and divide and partly make up the views of a landscape or lawn, to emphasize the elevations of the ground, to vary the sky-line, to screen unsightly objects, to enhance the beauty of buildings, to cool the atmosphere, and to furnish shade and shelter. The selection of trees should be in keeping with the natural and intended character of the landscape; it is a great mistake to plant indiscriminately those which happen to be near or easy to procure. Among trees, as elsewhere, the need of variety must be emphasized. Dwarf trees and shrubs are best suited to small places; in selecting them, plant for a succession of bloom. To bridge over flowerless gaps, and to give contrast and continued brightness, there are trees with gaily colored foliage. Trees with beautiful bark or berries add much to the beauty of a place in winter. If these and the profuse, early spring-flowering trees are planted near evergreens, their beauty will be doubled by the fine background thus supplied. Further practical hints on planting will be found in the introductory pages.

DECIDUOUS TREES OF UPRIGHT GROWTH

With the modern facilities for successfully transplanting large trees, it is no longer necessary for new homes to seem bare and unattractive through a decade or score of years while their trees are growing. All who wish fine trees of specimen size are invited to correspond with us and to send their lists for our estimates.

ACER. Maple

Trees of this group are hardy, vigorous, adaptable to many soils, free from diseases, easily transplanted, regular in outline and beautiful in leaf. Nearly all are brilliantly colored in fall, especially the North American species

- A. campestre. European Cork Maple. Rather a small tree, with dark, dull green leaves, fading to brown and yellow. Has corky ridges on the branches. Very interesting when grown as a large shrub.
- A. dasycarpum. SILVER MAPLE. Of quicker growth than most trees, and valuable where immediate shade is required. Forms a large, spreading head; the fine leaves are silvery beneath. Grows over 100 feet high.

var. Wieri laciniatum. WIER'S CUT-LEAVED SILVER MAPLE. A very beautiful specimen tree, with delicately cut leaves and distinct, half-drooping habit. The leader grows rapidly upright, the

slender lateral branches curve gracefully downward. Of noble proportions when undisturbed, yet patient under considerable pruning.

- A. Negundo. ASH-LEAVED MAPLE; BOX ELDER. This species is easily distinguished by its pinnate leaves and greenish yellow bark. It grows rapidly into a large, spreading tree, 70 feet high, found valuable for planting timber claims, shelterbelts, etc., in the West, where it endures both drought and cold.
- A. platanoides. NORWAY MAPLE. A handsome tree, of large, fairly rapid growth, 80 to 100 feet, forming a dense, rounded head of strong branches and broad, deep green leaves. Sturdy, compact, vigorous, it is one of the very best trees for lawns, parks and gardens.

var. Schwedleri. The Purple Norway Maple's beautiful leaves attract attention at all seasons, but are especially fine in spring, when their gleaming red and purple contrasts brightly with the delicate green of other trees. In midsummer they are purplish green, in autumn golden yellow. Grows to 80 feet.

A. polymorphum. Japanese Maples. These are the most delicately beautiful of small exotic trees. The more vigorous types like Atropurpureum, Dissectum and Ornatum, are hardy even in New England; the variegated types are only variably hardy. In some varieties the leaves are exquisitely cut and bright-colored only in spring and fall; others are deep blood-red or golden yellow all the season. Landscape gardeners use them in quantity for hardy permanent beds of color. Grown as

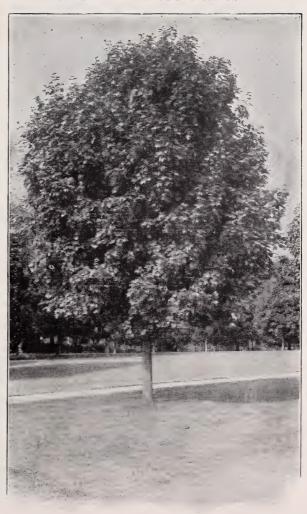
little specimen lawn trees, or in pots for house and porch decoration, they are also charming. There is not a dwarf tree in cultivation which can compare with the Japanese Maple for grace and beauty. They grow best in partially shaded situations and in rich, well-drained soil. Mostly grown as shrubs, rarely over 10 feet high. We can supply them in quantity and in great variety.

A. Pseudo-platanus. EUROPEAN SYCAMORE MAPLE.

A broad, handsome tree of medium size, rarely over 60 feet high, with larger, darker leaves than other Maples. Casts a dense, cool shade.

var. purpurascens. A purplish tone is imparted to the tree by the purple under-surface of its leaves; the effect is fine when the leaves are in motion. Height same as the preceding.

A. rubrum. RED, or SCARLET MAPLE. Large tree, with spreading branches. The earliest Maple to bloom, the beautiful red flowers appearing in late winter. In the fall, the leaves turn to the most brilliant shades of red and scarlet.



NORWAY MAPLE



SUGAR MAPLE

Acer, continued

- A. saccharum. Sugar, or Rock Maple. This tree is chieftain of its clan, straight, spreading, symmetrical, of grand proportions, often 120 feet in height, and longer-lived than most men who plant it. It grows well in all except damp, soggy soils, and roots deeply, allowing the grass to grow close about its trunk. Its bold leaves have very rich autumn tints of clear yellow and scarlet. One of the finest and most generally useful of all our shade trees; makes grand avenues.
- A. Tataricum. TARTARIAN MAPLE. A distinct and attractive dwarf tree of moderate growth—about 20 feet high; valuable for grouping. Scarlet in autumn.

var. Ginnala. More like a large shrub, 20 feet high, with 3-lobed leaves and flowers in long panicles. Foliage turns bright red in autumn. Sometimes used as a substitute for the Japanese Maples.

ÆSCULUS. Horse-Chestnut

The Horse-chestnuts have an elegant pyramidal habit, deeply lobed leaves and showy, upright panicles of white or red flowers. They are hardy, vigorous, free from insects, and among the first trees to unfold their leaves in spring.

Æ. flava. A large tree, growing to 80 feet, with leaves in fives. Has large panicles of yellowish flowers in May and June and smooth fruit in the fall. Splendid where dense shade is wanted.

- **Æ. glabra.** Ohio Buckeye. Grows very large, with spreading branches and light green leaves turning yellow in autumn. Great clusters of yellowish flowers in spring, and prickly burs, enclosing the nuts, "buckeyes," in autumn.
- Æ. Hippocastanum. EUROPEAN WHITE-FLOWERED HORSE-CHESTNUT. A large tree, 60 to 80 feet tall, of regular outline, spangled in May with great, upright spikes of white and red flowers. Has no superior as a specimen flowering tree.

var. rubicunda. RED-FLOWERING HORSE-CHEST-NUT. A somewhat smaller tree, rarely over 30 feet high, with darker leaves and splendid showy red flower-spikes opening a little later. Fine for con trasting with the white-flowered. One of the finest trees in cultivation.

var. alba flore pleno. Double-Flowering Horse-CHESTNUT. A superb variety, 60 to 80 feet tall, with large panicles of double flowers, like hyacinth trusses in effect. Has no nuts to litter the lawn.

For Dwarf Horse-chestnut, see Pavia, among shrubs.

AILANTHUS

Chinese Sumach. Tree of Heaven

A. glandulosa. An extremely quick-growing tree; 60 feet tall and tropical looking, with pinnate, palm-like leaves. Valuable because it thrives in smoky cities and in soils where other trees perish. Only fertile trees should be planted, as the pollen from infertile sorts is disagreeable.

ALNUS. Alder

Of quick growth in dry or damp soils; especially useful for planting in soggy situations where other trees will not grow. Medium-sized, pyramidal trees, with dark foliage.



JAPANESE MAPLE (see page 37)

Alnus, continued

A. glutinosa. European, or Common Alder. Foliage roundish, wedge-shaped, wavy. Remarkably quick in growth; 30 to 60 feet high.

A. incana. Grows to 50 feet, with pointed, oval or oblong leaves. Handsome and graceful. Bears dainty catkins in spring, and adds little cones in the fall. Good for planting by the edge of

A. laciniata imperialis. IMPERIAL CUT-LEAVED ALDER. Of stately, graceful habit, 30 to 60 feet high, with large and deep-cut foliage. Vigorous and perfectly hardy. A grand lawn tree.

AMELANCHIER. Mespilus

A. Botryapium. Also known as Juneberry, Service Tree and Shadblow. Of graceful, slender, fastigiate form, white in April with a thick cloud of drooping snowy flowers that render it very conspicuous among bare, leafless trees. Its small, purplish fruits are edible in June. Rarely over 20 to 30 feet tall.

ARALIA. Angelica Tree

These are very distinguished small trees, with large, finely divided foliage and showy heads of cream-white flowers. They are quite useful in subtropical gardening or for forming showy, odd-looking clumps anywhere. Give a slight protection of straw or evergreen boughs in winter.

A. Japonica. A distinct and handsome Japanese species, 40 feet high, of spreading growth. Foliage immense and finely divided, stems spiny, flowers in great white spikes in July, producing a most beautiful effect.

A. pentaphylla. Grows more like a shrub, 10 feet high, with long, slender branches and few prickles. Very graceful when planted on rocky slopes, with its arching branches and bright green, shiny foliage. Bears green flowers in long umbels.

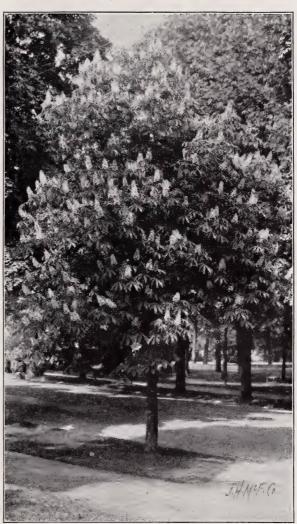
A. spinosa. HERCULES' CLUB. A showy native, with broad, handsomely cut leaves and huge clusters of small white flowers in July. Its winter effect is unique and handsome. Grows to 30 or 40 feet high.

ASIMINA. Papaw, Custard Apple

A. triloba. Well worth a place in the garden for its large, handsome foliage and attractive, early flowers. Distinctly novel in appearance, and effective on the lawn. Its fruit is large, oblong, yellow, pulpy, highly aromatic, and much relished by some people. Varies from 10 to 40 feet in height.

BETULA. Birch

The Birches are rightly considered among the most graceful and artistic of the deciduous trees, and for producing decorative effects they cannot be excelled. The paper-barked varieties are picturesque in all locations, while the white-barked kinds are wonderfully attractive.



EUROPEAN WHITE-FLOWERED HORSE-CHESTNUT
See page 38

B. alba. EUROPEAN WHITE BIRCH. This is the famous Birch of literature, growing sometimes So feet high. Quite erect when young, its branches begin to droop gracefully with age. Its bark is snow-white, and very effective in landscape views, especially if grown in front of a background of dark evergreens.

var. atropurpurea. Purple Birch. A handsome, white-barked tree, growing 50 to 80 feet high, with dark purple leaves which contrast beautifully with the bark.



CATALPA BUNGEI

Betula, continued

- B. alba, var. fastigiata. PYRAMIDAL BIRCH. Almost as useful in landscape work as the Lombardy Poplar. Of tall, columnar habit, 80 feet high, and very beautiful and effective.
- B. lenta. BLACK, or CHERRY BIRCH. A large and handsome native species, growing 60 feet in height, with fine-grained valuable wood. This is the variety from which is obtained the well-known aromatic "birch-bark,"
- B. lutea. YELLOW BIRCH. Large native tree, sometimes 100 feet high, with fine leaves and yellowish gray bark.
- B. nigra. RIVER, or RED BIRCH. A moistureloving, graceful tree, growing 50 to 90 feet high, with slender, numerous branches, and torn and ragged bark.
- B. papyrifera. PAPER, or CANOE BIRCH. The brilliant white bark of this species is wonderfully effective, particularly in winter and when planted against evergreens. A large, vigorous, upright tree, 60 to 80 feet in height, with broad, handsome leaves. Particularly effective when three or four young trees are grown in a clump.

CARYA (Shellbark). See Nut Trees CASTANEA (Chestnut). See Nut Trees

CATALPA. Indian Bean

A highly ornamental group, with large, cordate, bright green leaves and showy clusters of large purple and white flowers in July, when few other trees are blooming. They grow fast and bloom when quite young. The long beans of some species are odd and attractive.

- C. Bungei. CHINESE CATALPA. A curious dwarf form that grows only 3 or 4 feet high and twice as broad. It is very useful in formal work when grafted on stems 5 to 8 feet high, forming a pretty, dome-shaped head of great, soft, heavy leaves. The flowers are borne in large clusters a foot long; the leaves are laid with shingle-like precision. Hardy, strong-growing, unique. Besides the tall form, we can supply specimens worked low, forming handsome, dwarf specimens.
- C. bignonioides, var. aurea. A rather small tree, 20 to 50 feet high, with wide-spreading branches. Its large, heart-shaped leaves are a rich yellow in spring and early summer, producing beautiful effects when contrasted with plain and purpleleaved trees.
 - var. argentea. Leaves blotched and variegated with white. Can be used in contrasts or pruned back for subtropical bedding, when the leaves grow to large size.
- C. hybrida. Teas' Japan Hybrid Catalpa. Particularly valuable for its unusually quick growth, extreme hardiness, and the beauty and fragrance of its flowers. A large tree is a magnificent sight when in full bloom. Grows to 50 feet in height under favorable conditions.



Catalpa, continued

C. speciosa. Western Catalpa. A fine, hardy sort, well adapted for forest and ornamental planting. The coarse-grained, soft wood is very durable and useful for railroad ties, fence-posts, etc. Blooms earlier than the others and grows to be a large tree 100 feet high. In late summer, its great crop of long, narrow "beans" is very effective.

CELTIS. Hackberry, Nettle Tree

C. occidentalis. A rare native tree that deserves much more general planting. It grows 100 to 120 feet high and its light green leaves are glossy, pointed, almost entirely free from insects; the branches spread horizontally, forming a wide, elm-shaped head of medium size. Vigorous, hardy and healthy, thriving in all soils.

var. pumila. A dwarf form, rarely over 30 feet tall, and with smaller leaves. Sometimes more desirable by reason of its height.

CERASUS. Cherry

These small, thrifty, hardy, flowering trees are not sufficiently appreciated outside the "land of cherry blossoms." In their blooming season each tree is a perfect mass of daintily formed flowers, that in the weeping varieties sweep the grass in long wreaths.

- C. avium, var. alba flore pleno. Double White-Flowering Cherry. A charming small tree, 20 feet high, with branches completely hidden by a mass of large, double white flowers in May.
- C. Japonica. The famous ornamental Cherry of Japan, where it is cultivated in many forms, some of them full double. One of the handsomest flowering specimen trees in cultivation. Our trees are all top-grafted on tall stems that allow the bloom-wreathed branches space to form an exquisite drooping crown.
- C. pumila, var. Rhexi flore pleno. The white, double flowers of this pretty dwarf are rose-like in size and delicate regularity of petals. At blooming time it is a white drift of them. The tree rarely grows over 8 to 10 feet in height.

 For other varieties, consult Pendulous Trees.

CERCIDIPHYLLUM

C. Japonicum. A beautiful bushy tree, 20 to 30 feet high, rarely over, with slender branches and light green foliage. When young it is somewhat pyramidal in habit, and at all times it is distinctly graceful and ornamental.

CERCIS. Red Bud, Judas Tree

C. Canadensis. The hardiest and, perhaps, the finest species of a handsome group of early and profuseflowering trees. Medium height, 20 to 30 feet, forming a broad, irregular head of glossy, heartshaped leaves that color pure yellow in fall. It blooms in earliest spring, with the dogwoods and magnolias, and is valuable for grouping with them. Its masses of small, delicate rosy purple flowers wreathe the leafless branches so thickly as to give very fine contrasts and cheery spring effects. Must be transplanted when small.

CLADRASTIS. Yellow-wood

C. tinctoria (Virgilia lutea). One of the most beautiful medium-sized native flowering trees, growing to 50 feet. It has a short trunk and wide, rounded head of handsome foliage that colors clear yellow in fall. Its wood yields a clear yellow dye. In June it is showy and fragrant, with long, drooping racemes of pure white, pea-shaped flowers



FLOWERS OF CERASUS JAPONICA

CORNUS. Dogwood

Handsome trees of medium size, flowering after the red buds when most other trees are still bare. Their great 4-petaled white or red blossoms are carried in showy, horizontal masses. They rank next to the magnolias as spring-flowering trees, and next to the scarlet oak for brilliant autumn foliage. In summer their knobs of showy scarlet berries are odd and attractive.

C. florida. WHITE-FLOWERING DOGWOOD. The great white flowers are 3 inches and more in width, lasting in favorable weather for as many weeks. Besides the fine characteristics given above, the bright red bark on its young growths makes it attractive and cheery in winter. Tree rarely grows over 20 feet in height and is branching in habit. Blooms when small.

Cornus, continued

C. florida, var. flora rubra. A new and rare variety, with handsome red flowers displayed at an even earlier age than those of the White Dogwood. The two sorts are beautiful for contrasts.

For other species, consult Trees of Drooping Habit and Shrubs.

CRATÆGUS. Flowering Thorn

The low, dense, neat habit of the Thorns adapts them well for planting in small yards and for grouping anywhere. They are very hardy and grow well in all dry soils. The foliage is varied, always attractive, handsome and almost evergreen in some cases; the flowers are showy and abundant, often quite fragrant; the fruits are retained long in some species, are so thick as to burden the branches and frequently of bright colors. Few treegroups have such a long season of attractiveness, or so many fine points. Their foliage colors brilliantly in fall.

- C. Crus-galli. Cockspur Thorn. A exceedingly pretty dwarf tree, rarely over 20 feet high, with widely extended horizontal branches, giving it a flat-topped effect. The leaves are thick, glossy, semi-persistent, coloring to rich orange and scarlet in fall; flowers profuse, white, with tinge of red, opening in May; fruits showy scarlet, persistent until spring.
- C. Oxyacantha, var. alba flore pleno. Double White Hawthorn. When in bloom, a mass of clustered double, rose-like white blossoms. This is the famous May Thorn of English gardens. Not often over 10 feet in height, with spreading branches and stout spines. Very handsome.

var. coccinea flore pleno. PAUL'S DOUBLE SCAR-LET THORN. Of quick growth, showy, new and perhaps the best sort. The large, perfectly double flowers are a rich, glowing crimson.

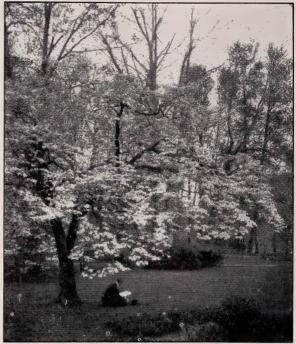
var. rosea flore pleno. Double Pink Hawthorn. Has the English Hawthorn's fine habit and fragrance. Pretty rose-colored blooms.

CYTISUS

C. laburnum. Golden Chain, or Bean Tree. This charming small tree, which rarely grows over 20 feet tall, takes its familiar name from the long racemes of golden yellow flowers with which it is radiant in June. It is of picturesquely irregular growth, and has glossy, pinnate leaves. Prefers a somewhat sheltered situation.

DIOSPYROS

D. Virginiana. Persimmon. This is the puckery Persimmon, the tree of which is much grown for its decorative features. It is a very ornamental tree, 50 feet high, with a round-topped head and handsome shining foliage. The fruit is the well-known puckery persimmon of peculiar flavor, and is an inch or more in diameter, of a pale orange-yellow, with bright cheek when touched by the frost, which is necessary to bring it to full ripeness.



WHITE-FLOWERING DOGWOOD

FAGUS. Beech

These are hard-wood trees of moderate growth and great beauty, invaluable for specimens, avenues and screens. They are distinguishable by their sturdy, solid trunks, smooth, gray bark and lustrous leaves, disposed in horizontal masses. All are beautiful even when small, and become magnificent with age. Prune back severely when planting.

- F. ferruginea. AMERICAN BEECH. Our noble native forest tree, growing to 80 feet, with silvery bark fine spreading growth and symmetrical rounded head. Especially attractive in spring with the tender, delicate green of its leaves and pendent flowers. Pure yellow in fall.
- F. sylvatica. English Beech. Slower growing, 60 to 80 feet, more compact, with larger foliage that clings through winter. Valuable for specimens, grouping and for screens.

var. heterophylla. Fern-leaved Beech. An elegant dwarf variety of the English Beech, rarely over 20 feet, with delicately cut leaves and slender drooping young shoots that give it a singularly airy and graceful wavy aspect. Forms a most ornamental addition to the lawn.

Fagus, continued

F. sylvatica, var. incisa. Cut-leaved Beech. A specimen tree of rare beauty, erect and rapid in growth, 20 to 30 feet high, with leaves curiously divided and deeply cut.

var. purpurea. Purple, or Copper Beech. A vigorous, elegant tree, reaching 50 to 80 feet in height, with foliage changing from deep purple in spring, through crimson in summer, to purplish green in fall. Hardy, long-lived, free from insect pests, useful for specimens or grouping. var. purpurea Riversi. Rivers' Blood-leaved Beech. Where a large tree with purple foliage is wanted, nothing equals this. It is generally conceded to be the finest of all purple-leaved trees. Though it varies in intensity of color, from early spring until late fall the leaves are always a rich shade. Grows 50 to 80 feet high. var. purpurea rosea marginata. Tricolored Beech. A charming form of same height, with

FRAXINUS. Ash

sheltered position.

deep purple leaves margined with rose. Give a

The Ashes most important in cultivation are mostly tall, pyramidal trees with rather light green pinnate leaves that turn yellow, dark purple, or remain plain green in fall. They grow rapidly when young, and are easily transplanted.

F. Americana. AMERICAN WHITE ASH. Our forest tree, tallest of the species, growing to 120 feet high, with straight, clean trunk, smooth, gray bark and glossy leaves. Useful for parks and streets.

F. lanceolata (F. viridis). Green Ash. A pretty tree of medium size, sometimes 60 feet high under good conditions.

F. excelsior. European Ash. Somewhat smaller and more spreading than the American Ash, growing 80 to 100 feet high, with short, thick trunk and darker foliage. Remains green in fall.

F. Ornus. FLOWERING ACH. Small and neatgrowing, rarely over 25 feet tall, with terminal panicles of fringe-like, greenish white flowers in May or June.

GLEDITSCHIA. Honey Locust

G. tricanthos. Three-thorned Honey Locust. A large, vigorous tree, over 100 feet high, with wide-spreading branches, feathery fern-like leaves, and a stout armament of thorns. Makes a fine defensive hedge. Bears long, pendent seed-pods, slightly twisted, with contents of a sweetish flavor relished by the country children.

var. inermis. Thornless Honey Locust. A handsome tree of slenderer habit, almost spineless, and therefore more suitable for lawns. Size and fruit same as the former.

GYMNOCLADUS

G. Canadensis. Kentucky Coffee Tree. A picturesquely irregular tree, 30 to 60 feet high, with peculiar rough-barked, twigless branches and broad fronds of twice-pinnate foliage of a peculiar bluish green. Bears long racemes of white flowers in early summer. The familiar name is from the seeds in its broad beans, which were once used for coffee in the southern mountains. Yellow in fall

HALESIA

Snowball, or Silver Bell Tree

H. tetraptera. A neat and pretty little tree, rarely over 12 feet high, with large, dark green leaves. May be grown as a shrub. In May while the leaves are yet small, its branches are hung thickly with small white or pinkish drooping bells about one inch long. These are followed by large and curious winged seeds which impart to it a curiously ornamental effect.

JUGLANS (Walnut). See Nut Trees

KOELREUTERIA

K. paniculata. VARNISH TREE. A rare tree, 25 to 30 feet high, from North China, very showy in July, when spangled with foot-long clusters of golden yellow flowers, and in autumn when its foliage colors to crimson and gold. It is perfectly hardy, and its neat, trim shape, coupled with its light, airy leaves, makes a very desirable tree for the lawn.



RIVERS' BLOOD-LEAVED BEECH



KENTUCKY COFFEE TREE

LARIX. Larch

L. Europæa. European Larch. A tall and handsome deciduous conifer, which grows to 100 feet
in height, with tapering trunk and pyramidal head.
Particularly beautiful in early spring, when covered with soft and feathery foliage of a delicate
green. Its plumy foliage and drooping twigs give
it a very graceful effect, while its trim, straight
figure is most imposing and majestic, and becomes the feature of any landscape. A grand,
hardy lawn tree that thrives well in all but soggy
soils. The autumn effect is very beautiful, the
foliage turning a brilliant yellow, giving the tree
the appearance of being a fountain of gold.

LIQUIDAMBAR

L. styraciflua. Sweet Gum. A tree that is beautiful at all stages, useful in all sorts of planting, and has more distinct, admirable traits than perhaps any other. Varying from 60 to 80 feet in height, it has a narrowly ovate head, formed of short, corky-winged branches and masses of star-shaped lustrous leaves that color to intense crimson-scarlet in fall. Even in winter its odd, swinging seed-balls and cork-winged branches make it picturesque and interesting. The name is from its fragrant sap and leaves. We have no finer tree for street and park planting, or for specimens.

LIRIODENDRON

L. tulipifera. Tulip Tree. A tall, magnificent native, of rapid pyramidal growth, to 100 feet. Its smooth, erect gray bole rises to a great height, and is clothed with a splendid vesture of large, glossy leaves, spangled in spring with large, tulip-shaped flowers of greenish yellow and orange. One of our most distinguished tall trees for broad avenues, parks and lawns.

MAGNOLIA

The spring inflorescence of the Magnolias is grand beyond description. Their great white pink and purple cups open in rich profusion before the leaves of other trees appear; the fruits which follow them are large, bright-colored and showy; the leaves are tropical in size and appearance; the trees are naturally of fine habit and bloom when quite small. They should be transplanted only in spring.

Chinese Species and Their Hybrids

M. conspicua. CHINESE WHITE MAGNOLIA. A choice, showy species, shrub-like when young, but gradually forming a medium-sized tree 40 feet high. Its superb white flowers cover the tree thickly in April, and form a conspicuous, handsome ornament to the lawn.



TULIP TREE

Magnolia, continued

- M. Lennei. A hybrid variety of great beauty, rather shrubby in growth, rarely over 20 feet high. The large flowers are of a deep rose-color, the foliage tropical and heavy, the tree vigorous and profuse-blooming, frequently opening grand flowers at intervals through the summer.
- M. Halleana (M. stellata). A pretty dwarf form, 10 to 20 feet high, that opens its snowy, semi-double flowers in April, earlier than any other Magnolia; their fragrance is pronounced and delicate.
- M. Kirtlandi. A bushy variety, which grows into a tree 20 to 30 feet high, and bears a great profusion of large flowers which are very nearly white. Very free-flowering and distinctly ornamental.
- M. macrophylla. Large-leaved Magnolia. A 50-foot tree with immense leaves, often 3 feet long. The flowers are cup-shaped and fragrant, a foot or more in diameter, blooming in May and June.
- **M.** purpurea. (*M.* obovata. Of dwarf habit; very showy in May and June, when its great purple flowers are open.
- M. Soulangeana. Soulange's Magnolia. One of the hardiest and finest of foreign Magnolias, rerembling Conspicua in flower and habit. In growth it is more like a large shrub, 20 to 30 feet high. Its blossoms are from 3 to 5 inches across, cup-shaped, white and rosy violet, opening a little later than Conspicua, yet before its leaves, which are massive and glossy.
- M. speciosa. Showy-flowered Magnolia. The flowers of this species are a trifle smaller and



MAGNOLIA CONSPICUA (see page 44)



MAGNOLIA SOULANGEANA

lighter-colored than those of Soulangeana, but the tree is of the same habit, 20 to 30 feet high; the flowers open about a week later and remain perfect on the tree longer than those of any other Chinese Magnolia. Very hardy.

Hardy American Magnolias

- M. acuminata. Cucumber Magnolia. The tallest of all the species, growing rapidly into a fine pyramidal tree, 60 to 90 feet high. In midsummer large, creamy white blossoms appear among its deep green leaves, and large, cucumber-shaped fruits that turn bright crimson succeed them. A grand avenue tree. Yellow in fall.
- M. glauca. Sweet Bay. When planted in moist soil this makes a handsome tree 30 to 40 feet high. Its leaves are glossy, laurel-like, almost evergreen. In June its pure white flower-cups are lovely and fragrant.
- M. tripetala. UMBRELLA TREE. Named from the whorled arrangement of its great, glossy leaves. The white flowers, also of great size, open in June and are followed by rose-colored fruit-cones. Tree grows to 40 feet.

OSTRYA. Ironwood

O. Virginica. HOP HORNBEAM. A graceful, birchlike tree of small to medium size, rarely over 30 feet, and slow growth. The bark is beautifully furrowed, the fruits clustered like hops. Valuable for dry situations.

PAULOWNIA. Empress Tree

P. imperialis. A splendid tree of tropical appearance, growing to 40 feet in height. Its erect panicles of handsome, lilac-purple flowers are often a foot long; the great leaves frequently measure 18 inches across, or larger, if cut back every year as in tropical bedding. When allowed to grow to its full height, it makes an imposing tree of great character—something entirely different from the more familiar trees—and attracts much attention wherever grown, as it has a distinct beauty of its own.



ORIENTAL PLANE TREE

PERSICA. Peach

A most beautiful small tree, rarely over 20 feet tall, and at its blossoming time in May every twig and branch is bright with beautifully formed flowers, rendering the tree showy and attractive at a great distance. The habit of the two varieties is the same, the only difference being in the color of the flowers.

P. vulgaris, var. alba fl. pl. Double White-flowering Peach. Superb buds and blooms of purest white.

var. sanguinea fl. pl. Double Red-flowering Peach. Semi-double flowers of bright red. A brilliant contrast for grouping with the above.

PLATANUS. Plane Tree, Sycamore

P. orientalis. ORIENTAL PLANE. One of the oldest cultivated trees, and among the best for street and avenue planting. It grows rapidly to grand size, is bold, picturesque, hardy, healthy, free from insects, vigorous in all soils, especially along the water's edge. A lofty, wide-spreading tree, growing 60 to 80 feet tall, with large, leathery, clear-cut leaves that turn yellow in fall.

P. occidentalis. AMERICAN PLANE; BUTTONWOOD. Broad-spreading; round-topped, massive and

picturesque, often 100 to 120 feet high. Very effective in winter when its branches show almost as white as a birch's, and its mottled trunk of gray, green and brown is revealed.

POPULUS. Poplar

Poplars are more easily and quickly grown than almost any other trees, and thrive in nearly all soils. Their leaves are bright and their tops thin, fitting them better for use in composition than as specimen trees. However, where immediate shade is desired, they can be planted with slower-growing, more permanent trees among them, and when the latter are large enough the Poplars may be cut away, if unsatisfactory. For screens, shelterbelts, seaside planting, streets, etc., great numbers of the trees are planted. When this is done judiciously they give a cheerful, sprightly air to almost any place. Their autumn coloring is bright yellow.

- P. alba Bolleana. Similar to the well-known Lombardy Poplar in habit, but broader, and, like it, useful in breaking the monotony of lower round-topped trees. Will grow to a tall spire 80 feet high. Its leaves are glossy green above, silvery beneath. A favorite with landscape gardeners.
- P. balsamifera. Balsam Poplar; Balm of Gilead. A handsome native, 60 to 80 feet high, with thick, dark, ovate leaves, silvery beneath. The spicy gum of the buds is used medicinally.
- P. nigra, var. Italica (P. jastigiata). Lombardy, or Italian Poplar. Of obelish form, growing rapidly to 150 feet. Forms striking lawn groups; is much used at Newport for tall screen hedges. Always makes a striking feature in any landscape.
- P. monilifera. Carolina Poplar. Unexcelled for quick growth and effect, its rapid growth giving an air of luxuriance to places where other trees appear starved. Showy and cheery from the constant movement of its glossy, silver-lined leaves, yet always casting a dense, cool shade. If well pruned back during the first few seasons it makes a strong, durable tree, 60 to 80 feet high,

Populus molonifera, continued. but it is often trimmed to a round head. Trimming increases the size of the leaves. Is yearly planted in great numbers, and is one of the most popular street trees. In some cities it is planted almost exclusively when opening new streets in residence sections.

var. aurea Van Geertii.
GOLDEN POPLAR. One
of the finest goldenleaved trees for contrast
groups, as it holds its
color well throughout
the season. Has all the
fine, vigorous characteristics of the species and
grows to about the
same height.



CAMPERDOWN WEEPING ELM (see page 53)

PRUNUS. Plum

P. Padus. EUROPEAN BIRD CHERRY. A pretty medium-sized tree, 30 feet high, with glossy leaves and long clusters of small, fragrant white flowers in May. These are followed by black fruits, loved



CAROLINA POPLAR

of all the birds. One of the earliest trees to leaf out in the spring.

P. Pissardi. Purple-leaved Plum. A distinct and handsome little tree, rarely over 20 feet high, covered with a mass of small, white, single flowers in spring, later with showy, pinkish purple leaves that deepen in color to the end of the season. Valuable for ornamental hedges or planting in quantity for contrast. It is perfectly hardy wherever the common plum will stand, and is a unique and beautiful ornament to the lawn at all times of the year. One of the most valuable of the flowering trees.

PTELEA. Hop Tree

Small, unique lawn trees, 15 to 25 feet high, with glossy, trifoliate leaves that exhale a hop-like odor when bruised. This odor is even more noticeable in the seeds, which hang in hop-like, light green clusters for some time after the leaves have fallen in autumn. Of easy culture in any soil.

P. trifoliata. Hardy, rounded, handsome in leaf and fruit.

var. aurea. Golden Hop Tree. Of the same, handsome, fruitful habit, but with very glossy, golden yellow leaves, constant throughout the season. Admirable for contrasts and grouping.

PYRUS. Crab and Mountain Ash

The Flowering Crabs are hardy, handsome little trees, fragrant in early spring with clusters of exquisite buds and flowers. The single sorts also bear crops of bright, cherry-like fruits. The Mountain Ashes are medium-sized trees, with pinnate leaves and showy crops of red berries.



FLOWERS OF BECHTEL'S FLOWERING CRAB

Pyrus, continued

P. angustifolia, var. Bechteli. Bechtel's FlowerING Crab. A low, bushy tree, rarely over 20 feet
in height. It is the most beautiful of all the fine
varieties of Flowering Crabs. At a distance the
tree seems to be covered with dainty little roses of
a delicate pink color. Blooms when quite young.
Is very fragrant. The illustration on the front
cover is a photographic reproduction of a branch
of this tree when in full bloom.

var. Medwietskyana. The entire tree, excepting the old leaves, is tinged with red—wood, bark, stems, young shoots with tender leaves, flowers and fruits. The last two are of a beautiful shade of deep red.

- P. atrosanguinea. Makes a beautiful contrast to the other varieties by reason of its darker red flowers. The buds are deep purplish red before opening, and the entire flower has a purplish tinge. Tree is of same habit as the others, growing about 15 feet high.
- P. floribunda. Flowering Crab. A large shrub or small tree, 20 to 25 feet high, often thorny, with rose-red flowers borne in great profusion in May. The fruit is red and very small, on long stems.
- P. Parkmani (P. Halliana). Parkman's Double-Flowering Crab. An elegant Japanese dwarf, rarely over 10 or 15 feet high, with long-stemmed, semi-double flowers of deep rose-color wreathing

its branches. It makes a fine, compact growth and its deep green leaves are retained quite late. The buds are long and handsome, and when cut last a long time in water, gradually unfolding to their full beauty.

P. spectabilis, var. alba fl. pl. White, double, fragrant flowers in May. One of the handsomest flowering trees, and perfectly hardy. Grows about 15 feet high.

var. rosea fl. pl. Double, fragrant, rose-colored flowers nearly 2 inches in diameter. Distinct, beautiful and deservedly popular. Makes a fine contrast to the white variety.

SORBUS. Mountain Ash

Medium-sized trees, with handsome, pinnate leaves, neat habit and showy crops of bright red berries, persistent until late in winter, giving a brilliant note to the autumn landscape.

Sorbus (Pyrus) Aucuparia. European Mountain Ash. Hardy, erect, 20 to 30 feet high, with smooth bark and dense, regular head; berry clusters large and bright.

var. quercifolia. Oak-leaved Mountain-Ash. Of the same fine habit, but with dark, lobed leaves, downy underneath.



PYRAMIDAL OAK (see page 49)

QUERCUS. Oak

Although their growth at first is slow, if planted in good soil the Oaks will outgrow many other trees. For wide lawns, parks, public grounds, avenues, etc., where they have room to develop, few trees are so majestic and imposing, so enduring, so varied in expression. Their great vigor and hardihood enable them to withstand many untoward conditions.

- Q. alba. White Oak. Grandest of its genus and of our American trees. A spreading, towering species growing 100 feet high when fully developed, with rugged, massive trunk and branches. The deeply lobed leaves change to dark crimson in fall.
- Q. Cerris. Turkey Oak. A large tree, 80 to 100 feet high, with rather short, spreading branches forming a broad pyramid.
- Q. coccinea. SCARLET OAK. A grand, round-topped tree, 60 to 80 feet high, with bright green, deeply cut leaves that color to sparkling red in fall.
- Q. macrocarpa. Mossy Cup, or Bur Oak. Of massive, open growth, 80 to 120 feet high, with moss-fringed acorns, large, heavy leaves and deeply corrugated bark.
- Q. palustris. The beautiful PIN OAK. Almost pyramidal in habit, and sometimes described as half-weeping when old, because its lower branches touch the ground. It grows faster and develops



PIN OAK

the family characteristics earlier than most Oaks, as may be seen from some fine avenues planted within the last score of years. It grows 60 to 80 feet, sometimes taller. The leaves are deep green, glossy, and finely divided. Orange-scarlet in fall.

- Q. pedunculata. var. fastigiata. Pyram-IDAL OAK. A distinct, handsome form, 80 to 100 feet tall, with upright branches forming a narrow columnar head. Green until late in fall.
- Q. Robur. English Oak. A broad, spreading, graceful tree, of slow growth, reaching the mighty stature of 120 feet, and remaining vigorous and beautiful for centuries.
 - var. Concordia. Golden Oak. A choice variety of medium growth, with bright yellow foliage through spring and early summer. Hardy, healthy constant in color; conspicuous in any collection.
- Q.rubra. RED OAK. A large tree, 80 to 100 feet tall, unusually large in leaf and quick in growth. The young shoots and leaf-stems are red, the foliage purplish crimson in autumn. A most beautiful, object on the lawn



AVENUE OF MAIDENHAIR FERN TREES (see page 50)

SALISBURIA. Ginkgo

S. adiantifolia. MAIDENHAIR FERN TREE. A distinguished Japanese tree, 40 to 60 feet high, of columnar growth when young, spreading with age, into an odd, sketchy outline. Its thick, leathery leaves are clear-cut and shaped like the leaves of the Maidenhair Fern. A rare and elegant tree that is yet robust enough to endure general city planting. Its unique appearance and habit of growth make it a valuable acquisition. Grows fast; has no insect or fungous enemies.

SASSAFRAS

S. officinale. A really handsome medium-sized tree, 30 to 50 feet high, with fragrant, light green foliage band bark. Its small yellow flowers are attractive in early spring, and followed later by dark blue fruits. Grows well even on thin soils.

SALIX. Willow

Besides the beauty of their airy summer foliage, the Willows have a distinct value in the brightness of their bark when leaves have fallen. There are few trees that can be used to such advantage for cheery winter effects. They grow fast and are adapted to a variety of soils and uses. Frequent cutting back gives a thicker growth of bright young twigs.

S. laurifolia. LAUREL-LEAVED WILLOW. A beautiful, distinct, medium-sized tree, 8 to 20 feet high, with shining, laurel-like leaves that make it very conspicuous in sunshine. Can be clipped into form like a bay tree; has bright green bark; is beautiful the year round.



AMERICAN LINDEN

- S. regalis. SILVER WILLOW. A large tree, sometimes 100 feet high, with short and thick trunk and yellowish brown branches. The foliage is ashy gray and silvery, giving a white appearance to the whole tree.
- S. rosmarinifolia. ROSEMARY-LEAVED WILLOW. A pretty dwarf, not over 8 feet high, very airy in effect, because of its feathery branches and small silvery leaves. Grafted on tall stems, it forms a neat round head of feathery silver-gray.
- S. vitellina aurea. A fine tree at all seasons, but very showy in the winter months for its bright yellow bark, making it a conspicuous feature in the landscape. Grows to be a very large tree, 80 to 100 feet high, with a venerable appearance.

We can also supply in quantity other brightbarked Willows for grouping, among them Cardinalis and its variety, Wentworth (bright and deep red), Canescens, Scarlet and Japan Golden,

SOPHORA. Pagoda Tree

S. Japonica. Japan Pagoda Tree. An odd and unique specimen tree, 40 to 60 feet high, so different from other trees in style of growth that it always attracts attention. Its short branches form a dense, round head. In August its shining green leaves are decked with clusters of white blossoms.

TAXODIUM. Deciduous Cypress

T. distichum. The famous Southern, or Bald Cypress is perfectly hardy, even in the North, and grows well on dry or wet soil. It is a beautiful and stately tree, growing 80 to 100 feet high, pyramidal in shape, with light and fleecy foliage of delicate green.

TILIA. Linden, Basswood

The Lindens grow fast, forming noble trees of rounded outline, and casting a dense, cool shade. The leaves are large and cordate, the flowers light yellow, exhaling a delightful citron odor. All are among our best large-growing street and avenue trees, fine also for specimens and grouping.

- T. Americana. American Linden. A stately tree, growing 60 to 80 feet tall, with large, shining cordate leaves. Particularly valuable for its beautiful white wood. Its flowers appear in July.
- T. platyphyllos. Large-Leaved European Linden.
 An exceedingly broad-leaved variety, growing into a noble tree 60 to 80 feet high. It flowers in June, the earliest of the Lindens.

var. argentea. SILVER-LEAVED LINDEN. Conspicuous among other trees because of its silverlined leaves. These give it great brilliancy when ruffled by the wind. Handsome, vigorous, pyramidal in shape. 60 to 80 feet high.

var. aurea. GOLDEN-BARKED LINDEN. A handsome variety, with bright yellow bark covering the branches, giving it a picturesque appearance.

ULMUS. Elm.

Where given room to develop, the Elm forms majestic specimens of lofty height and retains its beauty and vigor almost as long as the oaks. Most useful for landscape planting. All the species make a rapid growth under favorable conditions.

U. Americana. AMERICAN ELM. Easily distinguished by its wide, arching top, vase-like form and pendulous branchlets. Next to the oak, this is the grandest and most picturesque of American trees. Attains 80 to 120 feet. Dull yellow or brown in fall.

U. campestris. English Elm. More densely branched than the American, and not quite so tall, with smaller, darker leaves, retained longer in autumn. The branches project from the trunk almost at right angles.

var. Dampierrei aurea. Dampierre's Golden Elm. Leaves of bright golden yellow, with green spots in center. Very striking.

var. stricta purpurea. Purple-leaved English Elm. Leaves purple, branches erect. A beautiful contrast for the green- and golden-leaved Elms.

U. fulva. Red, or SLIPPERY ELM. Somewhat smaller than the American and English Elms, growing only 50 to 70 feet high, with larger leaves. Forms a spreading head and is a good avenue tree. Yellowish in fall. The mucilaginous bark is medicinal.

U. scabra (U. montana). Scotch, or Wych Elm. A grand, spreading tree of rapid growth and variable habit. Attains a height of 100 feet and forms a broad, round-topped head.



AMERICAN ELM

var. Dovæi. A remarkably vigorous, upright-growing sort, especially adapted to street planting. var. Huntingdoni. Huntingdon Elm. Erect, vigorous and quick in growth, with clean, smooth bark. One of the finest Elms for any purpose. var. fastigiata (pyramidalis). Forms a beautiful medium-sized specimen tree of elegant pyramidal habit, with twisted, broad, dark green leaves.

DECIDUOUS TREES OF DROOPING HABIT

The trees of this group are not at all mournful in expression, and the term "Weeping," so generally

WEEPING BEECH (see page 52)

applied to them, is inappropriate. The most prominent characteristic of most of them is exceeding grace; a few are grotesque and interesting from their oddity. All are invaluable for the variety they add to landscape and garden.

BETULA. Birch

B. alba. Often classed with Weeping Trees. For description see page 39.

var.pendula laciniata. Cut-leaved Weep-Ing White Birch. Many attractive characteristics combine to make this a tree of wonderful grace and beauty. Tall and slender, growing to 60 feet, vigorous, with slender branches in drooping festoons of delicately cut leaves. It colors brilliantly in fall and its bare white trunk and branches make a beautiful winter picture.

var. pendula Youngi. Of naturally trailing growth, with long, slender shoots of picturesquely irregular form. Grafted on good stems it forms one of our handsomest domeshaped trees.



CUT-LEAVED WEEPING BIRCH (se page 51)

CERASUS

C. Japonica, var. rosea pendula. Japan Weeping ROSE-FLOWERED CHERRY. An exquisite little tree, 8 or 10 feet high, draped in rosy masses of bloom

in early spring before its leaves appear. Even when grafted on tall stems its slender branches sometimes sweep the grass in graceful garlands. Well adapted to small lawns.

CORNUS. Dogwood

C. florida, var. pendula. WHITE WEEPING DOGwood. An odd and pretty little tree, growing more like a large shrub, 8 to 10 feet high, adding to the good characteristics of the other Dogwoods a distinct weeping habit which makes it a unique and interesting member of this family.

FAGUS. Beech

F. sylvatica, var. pendula. WEEPING BEECH. A large, luxuriant tree, of curious, irregular growth, to 60 or 80 feet. Its sparkling masses of foliage are swept by tortuous branches into fountain-like masses of green, wonderfully rich and graceful in effect.

FRAXINUS. Ash

F. excelsior, var. pendula. WEEPING ENGLISH ASH. Grafted on tall stems this tree spreads into a pretty green tent of shade, 10 to 12 feet high, making it a distinct and beautiful ornament to the lawn. One of the best trees for forming arbors and shady

var. aurea pendula. Similar to the former, but with bright yellow branches which make it distinctly ornamental.

MORUS. Mulberry

M. alba, var. Tatarica pendula. TEAS' WEEPING MULBERRY. We cordially recommend this as one of the thriftiest, hardiest and most beautiful of weeping trees. Grafted on a straight stem, 6 to 8 feet high, its branches sweep the ground, forming a beautiful tent of green. It transplants easily and is appropriate for both large and small places. The leaves are lustrous and distinctly lobed.

NYSSA. Sour Gum

N. sylvatica. A tree rare in cultivation, but very beautiful and distinctive, especially in autumn, when its foliage turns to a flaming scarlet. Grows like a large shrub, 15 to 20 feet high, with its lower branches pendulous as it grows old. The foliage is very glossy and its upper branches twisted and kinked.



FOLIAGE OF RING WILLOW (see page 53)

POPULUS

P. grandidentata. Parasol de St. Julien.
A rather stiff, upright tree, 30 to 40 feet high, the branches of which take on a curiously zig-zag direction and droop toward the ground from a neat, round head. Exceedingly picturesque.

PYRUS

P. (Sorbus) Aucuparia, var. pendula. The Weeping Mountain Ash is a picturesque little tree, 10 to 15 feet high; excellent for lawn specimens or for covering arbors. It has beautiful pinnate foliage and bears white flowers in broad corymbs in May and June, followed by clusters of bright red, currant-like fruits.

TILIA. Linden

T. petiolari, var. pendula. Weeping Silver-Leaved Linden. An elegant mediumsized tree, 10 to 15 feet tall, of gracefully pendulous habit, that holds its large, silver-lined leaves through the season. Hardy, grows fast and is quite striking.

SALIX. Willow

- S. Babylonica. Our familiar WEEPING WILLOW. A fine, drooping tree, 30 to 40 feet high, with slender branchlets.
 - var. dolorosa. Wisconsin Weeping Willow. Of similar fine habit, but hardy further north.
 - var. annularis. RING WILLOW. An odd tree, with the leaves twisting so as to form rings along the drooping branchlets.
- S. Caprea, var. pendula. KILMARNOCK WEEPING. WILLOW. Unique in form and vigorous in all soils, this Willow has been widely disseminated. It is usually grafted 5 to 7 feet high on stout stems, and then forms a cone of glossy foliage.
- S. elegantissima. Thurlow's Weeping Willow. Larger and more spreading than the Babylonian form, and hardier. Similar to it in foliage and grayish green bark. Grows to 60 feet high and is more hardy than Babylonica.
- S. purpurea, var. pendula. American Weeping Willow. Forms a fine round head, 20 to 30 feet from the ground, sweeping outward in fountain shape.



TEAS' WEEPING MULBERRY (see page 52)

ULMUS. Elm

- **U.** Americana, var. pendula. A handsome, drooping tree, 40 to 60 feet high, with shorter trunk than the typical Elm and limbs which curve outward and bear long, pendulous branches.
- U. fulva, var. pendula. The most rapid-growing of all weeping trees, 40 to 50 feet tall. The branches at first grow upward, finally bending in gracefu curves to the ground.
- U. scabra, var. pendula. Camperdown Weeping Elm. One of the most distinct and picturesque of all our "Weeping Trees." Grows 20 to 30 feet high and is of fine and notable habit, the strong, stout branches often sweeping out horizontally for several feet before they curve downward, making a broad, handsome head.

In addition to this Catalogue, we issue two others: No. 1, out January 1, containing complete lists of Flower and Vegetable Seeds, Roses, Greenhouse and Bedding Plants, Trees of all kinds, Shrubs, Vines, etc., with price-list. No. 2, out August 1, contains Spring-flowering Bulbs, Winter-blooming Plants, Trees, Vines, Small Fruits, etc., with price-list. Both of these Catalogues will be sent free upon request as they are issued.



CONE-BEARING EVERGREENS

Including Both Trees and Shrubs

The landscape gardener is no longer content to use evergreens in quantity merely for specimen trees, shelter-belts, screens, hedges, etc. As new beauties are being continually discovered in them, new uses develop also. They form perfect backgrounds for the flowering shrubs of early spring, the berries of autumn and winter's tracery of bright bark and twigs. Beautiful beds of permanent color are formed by grouping together sorts of moderate growth, with contrasting foliage,—golden, golden green, silver-blue, rich, dark and delicate green, with bright-berried sorts interspersed. Other new uses are for filling window-boxes, and growing evergreens in tubs for hall and porch plants.

Our evergreens are all carefully grown, at good distances for symmetrical development, are root- and top-pruned into handsome, shapely specimens that will transplant successfully to new homes with ordinary care. We pack them so that the root-fibers are well protected and will reach their destination in good growing condition. If planters will continue this care to keep the fibers from drying out by exposure to air and sun until the stock is planted, its success is reasonably sure. Prune evergreens before their spring growth starts, and only when necessary to thicken their growth or preserve their shape.

All who desire LARGE SPECIMEN EVERGREENS are invited to send us their lists. We have some very handsome specimens and shall be glad to furnish estimates.

ABIES. Fir and Spruce

- A. balsamea. AMERICAN SILVER FIR. A regular, symmetrical tree, assuming the cone shape when quite young, reaching 50 to 80 feet in old age. Leaves dark, lustrous green, lighter beneath.
- A. Canadensis. Described under Tsuga.
- A. Cephalonica. Cephalonian Silver Fir. A remarkably fine Grecian species, very broad for its height, quite hardy and vigorous. The leaves are sharp-pointed, silvery and dagger-shaped. Grows 60 to 70 feet.
- A. concolor. The White Fir of the Rocky Mountains is one of the most beautiful species in cultivation, growing 80 to 100 feet in height. It withstands heat and drought better than any other

Fir, is very hardy and grows rapidly. Its graceful habit, and broad, handsome foliage, glinting with blue on the upper surface, silvery beneath, make it a rival for the elegant Colorado Blue Spruce. Especially bright when young.

var. violacea. Like the above, with foliage of a deeper blue.

- A. Douglasi. Douglas' Spruce. A Colorado species. Forms a large, spreading pyramid of light green foliage, 80 to 100 feet in height.
- A. Fraseri. The DOUBLE BALSAM FIR is a rare form from the southern Alleghanies, similar to A. balsamea in habit, but longer-lived and richer in effect. Grows 30 to 50 feet tall.
- A. Nordmanniana. NORDMANN'S SILVER FIR. One of the richest evergreens, forming a dense, dark

Abies Nordmanniana, continued

specimen tree of beautiful proportions, that may be finely contrasted with lighter-foliaged sorts. The foliage is wide, dark and lustrous, with a silvery, sparkling under-surface. Its moderate growth adapts the tree well even to grounds of small extent, but with age it reaches grand size, 80 to 120 feet high, and when fully grown is a most noble and imposing feature on a large lawn.

- A. picea (A. pectinata). European Silver Fir. Forms a fine pyramid of deep green, sometimes 150 feet high; grows fast, is hardy, and holds its color well.
- A. polita. A dense, broad pyramid, 80 feet high, with rigid, stout branches, which become somewhat pendulous with age. Foliage is a light shining green, and projects in all directions from the branches.

CUPRESSUS. Cypress

C. Lawsoniana. Lawson's Cypress. A rare, handsome conifer, that forms beautiful specimens 80 to 120 feet in height. The branches are frond-like in arrangement and droop gracefully at the tips, forming a dense, elegant pyramid. Their rich, deep green color is retained all winter.

CHAMAECYPARIS

C. Nutkaensis (Thuyopsis borealis). NOOTKA SOUND CYPRESS; YELLOW CEDAR. An extra-choice pyramidal evergreen, 80 to 100 feet high, with spreading, curving branches and flexible branchlets drooping at the tips. Leaves glaucous green.

JUNIPERUS. Juniper, Red Cedar

J. communis. English Juniper. A neat, dense, fastigiate tree, growing 20 to 30 feet tall, with foliage of grayish green. Useful in formal work. var. Hibernica. Irish Juniper. An erect, dense column of dark green, 30 to 40 feet high, found quite effective in general landscape and formal planting.

var. Suecica. SWEDISH JUNIPER. Of narrow, columnar form, sometimes 40 feet in height, with lighter, more bluish foliage than the Irish Juniper. Branchlets droop at the tips.

var. Suecica nana. DWARF SWEDISH JUNIPER. A fine and compact dwarf form, growing only 8 to 10 feet high.

J. Japonica. Dwarf, dense, bushy, only 5 to 8 feet high, with light lively green foliage in whorls around its procumbent branches.

var. aurea. Golden Japan Juniper. Of moderate growth and spreading habit. The attractive golden-hued foliage is constant throughout summer.

- J. excelsa. Of distinct and compact pyramidal growth, becoming 60 feet high with age.
- J. macrocarpa (J. Neaboriensis). Forms dense, distinct, pyramids of short branches. The leaves are short, rigid, glaucous. A handsome specimen tree, growing 10 to 12 feet high, and is as distinctively ornamental as almost any other evergreen tree when planted on the lawn.
- J. Sabina. Savin Juniper. A thickly branched, low, spreading tree, that rarely reaches 10 feet in height; variable, sometimes procumbent. It is very hardy and thrives in the poorest soils; can be trained into any shape. The handsome foliage, of deep dark green, makes it a favorite for many uses, especially for rockwork.
- J. Virginiana. RED CEDAR. Is always popular and can be used ornamentally in a number of ways, thriving well and making a fine appearance in soils or situations where other trees will not grow. Grows 80 to 100 feet high.

var. elegantissima. Like the type in habit, but the tips of the young branches are golden yellow. A valuable tree for planting in groups of darkfoliaged trees for contrast.

var. glauca. Blue Virginia Cedar. Throughout the year the leaves are a rich silvery blue. Very handsome and effective.



WHITE FIR (see page 54)

PICEA. Spruce

- P. alba. WHITE SPRUCE. One of the very best conifers, especially for cold climates. Compact, upright, growing 60 to 70 feet in height, long-lived, retaining its branches to the ground, aromatic, drought-resisting; varies in color from light green to glaucous blue. A good species for growing in tubs.
- P. Alcockiana. Alcock's Spruce. A hardy and distinct Japanese species of pyramidal habit, growing 60 to 100 feet high. Even when quite young it produces cones that add much to its attractiveness. The leaves are deep green, with glaucous white under-surface, creating a most pleasing effect.
- P. Engelmanni. ENGELMANN'S SPRUCE. A handsome Colorado species that is exceedingly hardy and fine in every way. Grows 80 to 100 feet tall. Its soft, plumy foliage is of a delicate bluish color.
- P. excelsa. The NORWAY SPRUCE and its many uses are well known. It is planted for hedges, shelter-belts, screens, backgrounds, etc., in large

quantities every year. It has a naturally fine gothic form, grows fast, reaching 80 to 100 feet, and seems to suit all soils.

var. aurea. Golden Norway Spruce. Not so high as Excelsa, but is desirable on account of its yellow foliage, making a lively contrast to the darker sorts.

var. inverta. Weeping Norway Spruce. Grotesquely pendulous; attractive from its novelty and unique habit. Grows 40 to 60 feet high and has larger and lighter green foliage than its parent.

- P. nigra. BLACK SPRUCE. A handsome small tree, rarely over 25 feet high, with slender, pendulous branches. Valuable for cold climates and light, dry soils
- P. pungens. Colorado Blue Spruce. A magnificent tree, 80 to 100 feet high, with a silvery blue sheen that makes it a striking object in any landscape. Hardy in any exposure, of vigorous growth and elegant habit, with broad, plumy branches, often as regularly set in whorls as those of an Araucaria.

var. Kosteriana. Koster's Blue Spruce. The

very best of the Blue Spruces. Foliage is silvery blue, densely crowded on the many branches. We have paid particular attention to getting the absolutely true stock of this famous tree and can guarantee its true blue color and character. In height it is the same as the former variety.



WHITE SPRUCE

PINUS. Pine

- P. Cembra. SWISS STONE
 PINE. A fine-shaped
 tree, 60 to 80 feet high,
 with spreading, short
 branches, forming a narrow, dense pyramid.
- P. excelsa. BHOTAN PINE.
 A large, handsome tree of loosely graceful habit, 80 to 100 feet high, with needles longer, more silvery and pendulous than the White Pine's. A grand specimen tree if given room for development.
- P. Laricio, var. Austriaca.

 The Austrian Pine is one of the best foreign species for this country.

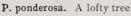
Pinus Laricio, var. Austriaca,

Its growth, even when young, is characteristically stout and sturdy. A remarkably robust, hardy, spreading tree of grand size, 100 to 150 feet in height; very dark and massive in effect, and when planted in an appropriate location is distinct and unique.

P. montana, var. Mughus.

DWARF MUGHO PINE.

A unique Alpine species,
broader than its height
and sometimes almost
prostrate, forming a
dark, dome-shaped
bush, 5 to 8 feet high.
Used for planting on
rocky banks, terrace
slopes, small lawns,
rockeries and near the
sea.



from our western coast, growing sometimes to 150 feet. Hardy, quick-growing, with long needles of silvery green.

P. Strobus. WHITE, or WEYMOUTH PINE. Tall, stately and most beautiful of all our native Pines, reaching a height of 120 feet. It is also among the



GOLDEN JAPAN CYPRESS



DWARF MUGHO PINE

quickest-growing, longest-lived, and most generally useful. The needles are long, silvery blue, and plumy in effect; the tree grows naturally into symmetrical specimens and makes a most imposing feature on the lawn when grown singly. It is particularly valuable for the formation of fine backgrounds and shelter-belts for large lawns. A valuable timber tree for even the poorest soils.

P. sylvestris. Scotch Pine. Dense, broadly pyramidal, 50 to 80 feet high, luxuriant in growth, with strong, erect shoots and silvery needles.

RETINOSPORA. Japan Cypress

As miniature trees, these handsome, neat-growing evergreens are unequaled. The group includes species very different in habit, and a number of bright, distinct colors. They give exceedingly pretty effects in outdoor grouping, and, grown in tubs or window-boxes, are valuable for house decoration in winter. Outdoor groups or specimens need some protection in winter.

R. obtusa, var. gracilis aurea. A neat and graceful bush, 8 to 10 feet high, with fern-like young shoots of a fine golden hue.

var. nana. A dwarf form, rarely over a foot or two high, with short, deep green foliage.

var. nana aurea. Dwarf like the former, but with dense foliage of a bright golden hue.

R. pisifera. Of more open growth than the Obtusas, growing sometimes to a large tree, 50 to 60 feet high, with erect branches, pendulous at the tips; foliage feathery, light green, glaucous beneath.

Retinospora, continued

R. pisifera, var. aurea. Much like the type in genereal characteristics, but with bright yellow foliage. When planted in combination with the green varieties, is valuable for its contrasting foliage.

var. plumosa. Densely conical, with fernlike leaves of bright green, carried on erect, plumy branches.

var. plumosa aurea. GOLDEN JAPAN CYPRESS. One of the few really golden evergreens. The color of the young growth contrasts strongly with the darker shade of the older foliage. Striking and useful in many ways.

var. plumosa argentea. SILVER-TIPPED JAPAN CYPRESS. The young growth on the tips of the branches is creamy white, giving the bush a pretty silver-mottled effect.

var. filifera. THREAD-BRANCHED JAPAN CYPRESS. Of unique and showy habit, always noticeable. The leading shoot grows upright, the branches are nearly horizontal, with long, drooping, tasseled ends. Pyramidal in outline; bright green.

var. squarrosa Veitchii. A handsome, medium-sized lawn tree of dense growth, 10 to 15 feet high. The silvery blue foliage is almost white when young, almost violet in winter, and arranged in curious spiral form.



RETINOSPORA OBTUSA (see page 57)

TAXUS. Yew

The Yews are choice, dwarf evergreens, densely clothed with small, blackish green leaves. Fertile specimens are brightened in autumn with scarlet berries. They thrive well in almost any soil, endure shade, and are valuable for formal gardens, beds of contrasting evergreens, etc.

T. baccata. English Yew. Grows to a tall, dark tree 40 to 60 feet high naturally, but can be sheared into any shape and size. Has a short frunk 8 feet or more in diameter, with reddish bark. Foliage is dark green.

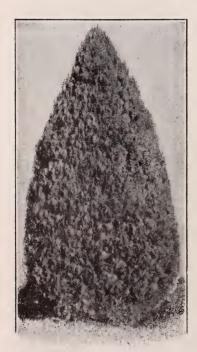
var. elegantissima. A beautiful, small, dense tree. The leaves are striped with silver; sometimes they turn bright yellow.

var. fastigiata. IRISH YEW. Strictly fastigiate, with stout, crowded, upright branches. The dark shining leaves are spirally arranged, the berries are red. One of the best columnar evergreens for formal gardens. Grows 30 to 40 feet high.

var. variegata. Leaves edged with golden yellow. Very effective when used in landscape work.

THUYA. Arborvitæ

The Arborvitæs vary greatly in habit and color. They bear transplanting and pruning well and have many uses, especially in formal gardens. They are also well suited for bedding with other evergreens, for hedges, screens, shelter-belts and house decoration. All are neat and symmetrical in habit, dense, bushy, with flattened, frondlike leaves.



PYRAMIDAL ARBORVITÆ See Page 59



AMERICAN ARBORVITÆ

Thuya, continued

T. occidentalis. AMERICAN ARBORVITÆ; WHITE CEDAR. The well-known screen and hedge plant. Grows naturally to a tree 40 feet tall, but can be kept down to any size by shearing. Will grow even in wet soils.

var. aurea Douglasi. Douglas' Golden Arborvitæ. Hardiest of its color. Of broader and more bushy growth, with long, slender branchlets and yellow foliage.

var. aurea Hoveyi. Hovey's Golden Arbor-VITÆ is a distinct, compact, hardy American seedling; dense and conical, with light golden green foliage.

var. compacta. Dense-growing, globular, with leaves of light grayish green.

var. ericoides. Dwarf and pyramidal, with heathlike leaves of grayish green, turning brown in

var. globosa. GLOBE ARBORVITÆ. A dense, round shrub, 4 to 5 feet high, with pretty, light green foliage.

var. Harrisoni. A neat little tree, 8 to 10 feet high, with branchlets all tipped with white. Unique in effect.

var. lutea (George Peabody). A handsome little bush of pyramidal form, with foliage of clear, lasting yellow. The best golden variety.

var. pumila. Dwarf, dense, dark green; fine for contrasts.

var. pyramidalis. Pyramidal Arborvitæ. Forms a tall, slender column of dark green, 20 to 40 feet high, similar to the Irish Yews. It keeps its fine color well all season. Very hardy.

var. Tom Thumb. Similar to *T. ericoides*, but smaller and more compact. Good for low hedges. var. Vervæneana. Small and dense, with slender branchlets and foliage variegated with yellow. Bronzy in winter.

var. Wareana. Siberian Arborvitæ. Pyramidal in shape, but lower and denser than the type. Foliage bright green.

var. Wareana aurea. GOLDEN SIBERIAN ARBORVITÆ. Young shoots of golden yellow.

T. orientalis, var. aurea. A fine, little globe-shaped bush of bright yellow. The Chinese or Eastern Arborvitæs need some protection in our climate. var. elegantissima. Rollinson's Golden Arborvitæ. Distinct from other eastern sorts. The up right, flat branches are held edgewise to the center of the tree. Their tips are bright yellow in summer, chocolate-brown in winter. Very handsome.

var. semperaurescens. Hardier than most eastern sorts, with brighter, more permanent golden color, which is retained throughout the year.

TSUGA. Hemlock Spruce

T. Canadensis. Hemlock Spruce. Our beautiful native, naturally open, free and drooping in growth, but very dense when pruned, forming good specimen trees, hedges or shelters. Its dark, pure green color is retained all winter, its grace and vigor to extreme old age. Grows naturally to 60 or 80 feet in height, but can be trimmed to any desired size.



HEMLOCK SPRUCE

BROAD-LEAVED EVERGREENS

BUXUS. Box

B. sempervirens. TREE BOX. A beautiful evergreen shrub of rather slow growth, with small, shining foliage. Familiar in old-fashioned gardens, indispensable in formal ones. It grows well in many soils and endures much pruning. Quite popular as a tub plant, for house and terrace decoration.

var. aurea. Has bright golden yellow foliage, excellent for contrasts.

var. suffruticosa nana. The pretty Dwarf Box so much used for edging. Slow-growing, neat, dense; the best plant in cultivation for the purpose. var. variegata. A beautiful small bush, having its shining leaves oddly marked with white.

DAPHNE

D. Cneorum. Garland Flower. A charming dwarf shrub, with fine foliage and dainty clusters of pink, perfumed flowers in May. Blooms at intervals until September. Excellent for growing in front of shrubbery.

EUONYMUS RADICANS. See Hardy Vines

KALMIA

K. latifolia. MOUNTAIN LAUREL; CALICO BUSH.
Next to the rhododendron this is our most beautiful hardy evergreen. Its quaintly formed, rosy white buds and flowers cluster in great trusses and contrast finely with the shining, dark leaves.
Even small plants are gay with them. Nothing



MOUNTAIN LAUREL

could be finer for grouping with rhododendrons, for massing in groups or planting singly. Easily forced and frequently grown in tubs.

MAHONIA

M. aquifolia. HOLLY-LEAVED MAHONIA. Sometimes included under Berberis. Handsome native evergreen of medium size, with shining, prickly leaves and showy, bright yellow flowers in May, followed by bluish berries. Quite useful in decorative planting for its neat habit and fine bronze-green leaves

RHODODENDRON. Rosebay

Through its blooming season in May and June, no shrub in Nature's garden, the world over, can compare with this. R. maximum, our magnificent native sort, frequently reserves a few great blossom-cones for our national holiday. In winter the great leathery leaves of the Rhododendrons form rich banks of green, quite different in character and color-tone from the tints of the conifers. Their summer blossoming, in richness and splendid individuality, can be compared only to that of the magnolias.

Rhododendrons are most effective and most easily cared for when planted in large beds or groups, so that their flowers may be displayed in rich masses. They will grow in any good soil, but are finest in a somewhat sheltered situation where the soil is deep, well drained and mulched with leaves. They have thick masses of fibrous roots that retain a quantity of earth in lifting, so that removal and transplanting is safe at any season except the short period of their rapid growth in the months of June and July. Should drought occur during the first year after planting, water the bushes liberally. In hot, dry weather water should be given, not daily in driblets, as lawns are sprinkled, but in quantity enough at one time to soak the border to the depth of the top soil, but at comparatively infrequent intervals, once a week or so. The bed should also be mulched with leaves or other material, to prevent evaporation; grass clippings are serviceable, but should not be used in large quantities at any one time, or else they will cause heat and thereby injure the plants. Leaves make the best winter protection, which should be given just before cold weather sets in. In spring dig the greater part of this into the ground, reserving some for a summer mulch.

IN ADDITION TO THE SEEDLINGS OF CATAW-BIENSE we offer the hardiest and best of the grafted varieties, more expensive and more desirable because they include a full range of distinct colors. Price-lists and estimates will be furnished on application.



BED OF HARDY AZALEAS

DECIDUOUS SHRUBS

The proper use of shrubbery in its connection with the adornment of the home grounds is becoming more and more a matter of intelligent study by all lovers of growing things, and as the tendency of the people towards living away from the centers of business is steadily on the increase, and the greater development in the upbuilding of our cities lies in the direction of opening up new suburbs, so is there an increase in the demand for those things which make for the beautifying of the exterior of the home. Nothing will do this more effectively than shrubbery, if intelligently selected and carefully planted. "The chief value of shrubbery," says a prominent writer, "comes from its use in an artistic way. In temperate latitudes, from early spring until November, leaves and flowers are to be found upon deciduous shrubs; from June until the following spring, ornamental fruits can be seen on their branches. Throughout the season the foliage of a well-planted shrubbery will present the greatest variety of color, including, besides yellow, white, gray and purple, all the hundred shades of green."

The proper planting of shrubbery adds not only to the beauty of a home, but remarkably increases the market value, and in order to assist our patrons to a judicious choice in the matter, we have prepared the following list which describes the habit, height and blooming season of the different varieties. Those who desire larger plants than are ordinarily supplied, or shrubs in larger quantities for extensive plantings, are invited to send for our estimates.

ALTHAEA. See Hibiscus, page 67

AMORPHA

A. fruticosa. False Indigo. Grows 6 to 10 feet high, and forms a large, spreading bush, with compound leaves, containing 10 to 20 bright green leaflets, and slender spikes of deep violet-blue flowers in June, after the flowers of most shrubs have faded.

AMYGDALUS (Flowering Almond) See Prunus, page 70

AZALEA

In early spring the Azaleas make a gorgeous show of bloom. A good way to plant them is among rhododendrons, for they thrive in the same kind of soil and under similar conditions, besides brightening the shrubbery with their flowers before the rhododendrons are ready to bloom.

A. mollis. The large flowers are produced in great trusses and in different shades of red, white, yellow and orange, rivaling the Rhododendron Catawbiense in size and beauty. The plants grow 3 to 5 feet high, and in early spring are covered with a mass of bloom.

A. Pontica, or gandavensis. Ghent Azalea. The most floriferous of the Azaleas, with the largest flowers. Produces a magnificent effect in early spring when the plants are covered with bloom, varying in all shades of white, yellow, orange, red, pink, carmine, and lilac. Plants grow 4 to 6 feet high and in cold climates they require some protection.

BENZOIN. See Lindera, page 69

BERBERIS. Barberry

There is a charm about the Barberries hard to describe, and no more practical and beautiful shrub can be grown. Their masses of white, yellow or orange flowers are showy in spring, their leaves color brightly in fall, their scarlet, blue or black berries are persistent through most of the winter. They make a dense, low hedge, will stand any amount of shearing, are perfectly hardy and will grow in any sunny, well-drained position.



THUNBERG'S BARBERRY

Berberis, continued

- B. Canadensis. Canadian Barberry. Seldom grows over 3 feet high, with bright green foliage, which turns to beautiful shades of orange, red and bronze in the fall. At all times it is distinctly ornamental.
- B. Thunbergi. Thunberg's Barberry. Inimitably neat and dense in growth, barely 3 feet high under the best conditions, yet quite graceful because of its drooping branches. The yellow flowers are followed by scarlet fruits borne in dense profusion on the long stems and clinging through most of the winter; the leaves color to scarlet and gold in autumn.
- B. vulgaris. EUROPEAN BARBERRY. Flowers yellow; berries dark red. Grows upright, 5 to 8 feet high, with light green foliage.
 - var. purpurea. Purple Barberry. A showy and effective shrub, similar to *B. vulgaris* in habit, but with fine purple leaves that contrast beautifully with its flowers and with other shrubs.

CALYCANTHUS

Carolina Allspice, Sweet Shrub

C. floridus. A unique shrub, growing rapidly upright to 6 feet, clothing its straight, strong, reddish brown shoots with large, glossy leaves, from the axils of which spring odd, double, spicily fragrant flowers of chocolate-red. This is the old-fashioned "shrub" that the children tie in the corner of their handkerchiefs. One of the earliest to bloom in the spring.

CARAGANA. Pea Shrub

C. arborescens. Growing 10 to 12 feet tall in good soil, it makes a handsome show in late spring

with its compound, bright green foliage and numerous small clusters of bright yellow flowers. It is perfectly hardy and is valuable either for mass or individual planting.

CEPHALANTHUS, Button Bush

C. occidentalis. One of the best shrubs for damp spots. It makes a dense, elegant growth, forming a rounded mass of dark green, studded with large causters of white, fragrant, ball-like flowers in July. Grows from 4 to 6 feet high and is distinctly ornamental.

CHIONANTHUS. Fringe Tree

C. Virginica. White Fringe Tree. One of our handsomest wild shrubs, growing to tree-like proportions in favorable locations. Its loose, gracefully drooping panicles of white flowers, appearing in May and June, are quite fragrant, and borne in fringing clusters above very large, deep green leaves of thick, leathery texture, turning yellow in fall. These are followed by small, blue, plum-like fruits. More like a small tree, growing 10 to 20 feet tall.

CLETHRA

C. alnifolia. Sweet Pepper Bush. A handsome little shrub, delightfully fragrant in September, when covered with long, showy wands of white flowers. It is valuable for the front of the border as it grows only 3 to 5 feet tall and is very sturdy and compact. Its beautiful flowers make a splendid show in the border at a time when white flowers are becoming scarce.



BERRIES OF SIBERIAN DOGWOOD

COLUTEA

C. arborescens. BEADDER SENNA. Of quick growth to 15 feet tall, in any dry, sunny situation, with graceful branches of delicate, acacia-like foliage. Its long racemes of yellow and cinnabar-red, peashaped flowers appear in summer, and are followed by showy, red, bladder-like seed-pods. Needs protection in the North,

CORCHORUS, See Kerria, page 68

CORNUS. Dogwood

The Dogwoods of tall growth and bearing large flowers are described under Deciduous Trees. The shrubby Dogwoods, in many cases, have very pretty flowers, but are valued also for their handsome fruits, leaf variegations and bright-colored bark. If planted in lines or groups against evergreens the bark is very showy in winter, especially if pruned yearly to make the growth of young shoots thicker.

C. alb2, var. Sibirica. SIBERTAN DOGWOOD. Free-growing, 6 to 10 feet tall, and very hardy; forms a small, handsome tree in some situations. Its clusters of small, white flowers in early summer are very dainty, and its bark is a showy, dark red in spring. All the Siberian Dogwoods bear in early fall a profusion of whitish blue berries, making them distinctly ornamental after the flowers have gone.

var. Sibirica variegata. A large, spreading shrub, 6 to 10 feet high, with clusters of white flowers in June, variegated foliage and coral-red bark.

war. Spæthi aurea. Grows quickly to rofeet,

with strong shoots and bright red bark. The leaves are broadly margined with creamy yellow. One of the sholcest variegated shrubs, with white flowers in June.

C. alternifolia. Mostly grown as a small tree, 25 feet high. Of distinct and curious growth, with branches arranged in irregular whorls, forming flat, horizontal tiers of large leaves. The flowers are fragrant and borne in large clusters in May and June, followed by dark blue fruits.

C. Mas. CORNELIAN CHERRY. Dense-growing, 10 to 12 feet high, with glossy foliage and yellow flowers very early in spring, succeeded by scarlet berries, which persist for a long time, making a beautiful show.

C. candidissima. Panicled Dogwood. A handsome shrub, 6 to 10 feet tall, with gray branches bearing immense panicles of white flowers in May and June, which are followed by white fruit borne on bright red stems.

C. sanguinea, var. elegantissima variegata. Grows 8 to 10 feet high, with purplish red branches and leaves handsomely marked with white. The flowers, which appear in May and June, are greenish white, in flat-topped clusters, followed by bunches of black berries.

C. sericea. Silky Dogwood. Conditions make this shrub vary in height from 3 to to feet. Has purplish branches and dense cymes of greenish white flowers and black fruits. Blooms in early summer.

C. stolonifera. RED OSIER CORNEL. A mediumsized, spreading shrub, with dark red bark and white flowers, followed by white berries.



WHITE FRINGE TREE (see page 62)

CORYLUS. Filbert, Hazel

C. avellana, var. atropurpurea. Purple-leaved Filbert. The Hazels are sometimes used as hedges and are valuable for this purpose. In early spring, the long, drooping catkins are very beautiful, and in fall the shrubs bear large quantities of delicious nuts. This variety is particularly valuable for group effects, the large, purple leaves holding their color well. It grows to a height of 10 to 12 feet.

CYDONIA. Japan Quince

C. Japonica (*Pyrus Japonica*). Very early in spring this fine old shrub is completely covered with dazzling scarlet flowers. The leaves are deep green and glossy, the growth tall, bushy, twiggy, with stout branches armed with fierce thorns. The quince-shaped fruits are quite fragrant. It makes a beautiful flowering and defensive hedge; grows naturally 3 to 6 feet high, but bears any amount of shearing.

DESMODIUM

The Desmodium, or, as it is called by some authorities, Lespedeza, is mostly listed as a perennial, as it dies down in winter, but is perfectly hardy. It is valuable for planting in front of shrubbery and its long, drooping racemes of purplish rose flowers are distinctly ornamental.

D. penduliflorum (Lespedeza Sieboldi). The clustering stems grow only 2 to 4 feet long, and droop with their weight of flowers in early autumn. Leaves are rich green, elliptic in shape, and grow in threes.

DEUTZIA

No other shrub in the whole list will yield better returns for a minimum of care than the Deutzias. They vary greatly in height and habit, but all have dainty bell- or tassel-shaped flowers borne thickly



SLENDER-BRANCHED DEUTZIA

in wreaths along their branches in June. The taller sorts are useful for specimens, groups, and the background of shrubberies; the dwarfer for borders or for planting near the house or in front of the piazza.

D. crenata. The beautiful white, single-flowered species, growing 6 to 8 feet tall, and a mass of bloom in early June.

var. f. pl. A double form of the type. Handsome and effective. The white flowers are delicately flushed with pink.

var. candidissima. The pure white double flowers in erect panicles 2 to 4 inches long, are so perfect in shape that they are frequently used as cut-flowers. The bush is neat and shapely, growing 6 to 8 feet high, and is a handsome addition to any planting.

var., Pride of Rochester. A showy, early, and large-flowering sort, that blooms in May before the others. Grows 6 to 8 feet tall. The white flowers are large and double.

var. Watereri. A superb sort, with large flowers borne in long, loose racemes. They are a pretty pink color and open out quite flat. The shrub is extra-vigorous and hardy, growing to 8 feet under proper conditions.

D. discolor grandiflora. A beautiful variety from China, with large leaves, dark green above, lighter beneath. The white flowers are borne in loose corymbs in June, and have spreading petals. Plants grow to 7 feet in height.

D. gracilis. SLENDER-BRANCHED DEUTZIA. A neat, dense little bush, rarely over 2 feet high, that blooms in May, wreathing its drooping branches with pure white flowers. Equally valuable for shrubberies and forcing.

var. carminea. A variety of Gracilis with the same habit, but bearing handsome racemes of deep rose flowers

var. Boule de Neige. A handsome hybrid, resembling its parent, and growing only 2 feet high.

Flowers large creamy white, fairly crowding the upper branches.

D. parviflora. A large, erect shrub, 4 to 6 feet tall, yielding a profusion of large-corymbed white flowers in June.

D. Lemoinei. Rarely growing over 3 feet high, with spreading branches, it has bright green leaves 2 to 3 inches long and white flowers grown in large clusters in early summer.

DIERVILLA. Weigela

The Diervillas bloom in late May or early June, profusely and showily. They grow rapidly into good specimens and thrive in nearly all soils. Their flowers are large, trumpet-shaped, in all colors from white to

Diervilla, continued

red, and clustered thickly along the branches. One of the handsomest shrubs in the garden.

- D. florida, var. amabilis. Very freeblooming and hardy; of good habit and rapid growth, soon forming a fine specimen, 6 feet tall. Large, deep rose-colored flowers
 - var. alba. Has all the good points of the type and pure white flowers. var. argentea marginata. An exquisite dwarf form, growing only a foot or two in height, with clearly defined, silver-variegated leaves and flesh-pink flowers. One of the best variegated shrubs.
- D. hybrida, var. Abel Carriere. Of all the hybrid Diervillas, this is perhaps one of the finest, growing to be a tall shrub, 8 to 10 feet high, and bearing great quantities of rose-carmine flowers with yellow spot in the throat. It blooms in May and June.
- D. florida, var. candida. An extra-choice and vigorous sort, 6 feet tall, that yields one profuse crop of flowers in June, and lighter ones at intervals all summer.
 - var. rosea. The same with deep pink flowers. var. rosea nana variegata. Of neat, dwarf habit, I to 2 feet in height, with pink flowers, and leaves broadly margined with creamy white. Admirably adapted to small lawns and gardens.
- **D. floribunda.** A large, fine bush, 6 to 8 feet tall, bright with crimson flowers that are small and cinnabar-red in the bud. Blooms in June and is very floriferous.
- D. Japonica. A handsome shrub, 6 to 8 feet high, Flowers rosy carmine and very abundant in May and June.

Diervilla Hybrids

All the hybrids grow 6 to 8 feet tall, and bloom profusely in late spring and early summer.

Chameleon. Rose.

Desboisi. One of the darkest and best of the rosecolored sorts.

Eva Rathke. Flowers of dark carmine-red. Distinct and fine.

Hendersoni. Deep rose-colored flowers. Unusually robust in growth.

Pascal. A choice variety that produces its dark red flowers at intervals through summer.

Van Houttei. Clear carmine flowers. Showy and handsome.

Verschaffelti. Light rose.



DIERVILLA FLORIDA

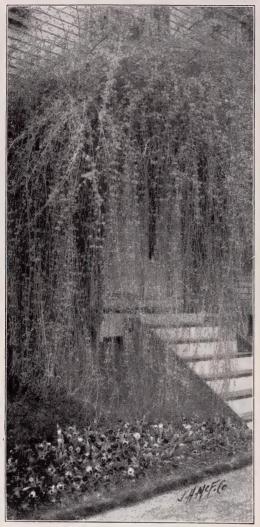
ELÆAGNUS. Oleaster

The shrubs of this group are desirable for their handsome, silvery leaves, fragrant flowers and showy fruits. They grow well in almost any spot that is sunny and well drained.

- E. angustifolia. RUSSIAN OLIVE. A very hardy and handsome species that in some sections forms a small tree, 8 to 12 feet high. The leaves are particularly handsome, willow-like and a rich, silvery white. The flowers are small, golden yellow and very fragrant, followed by yellow fruits, which are covered with silvery scales. Blooms in June.
- E. longipes. SILVER THORN. A showy shrub of strong, bushy growth, 5 to 8 feet in height, with the silver variegation of the family in the lining of its leaves, which are dark green above. Its fragrant, creamy white blossoms open in April or May; the scarlet, edible fruits hang thickly along its branches and are ripe in July. They make delicious sauces.

EUONYMUS. Strawberry Tree

- E. Europæus. EUROPEAN SPINDLE TREE. A large shrub or small tree, growing to 15 feet. In spring it is covered with a wealth of bright yellow flowers in nodding clusters, followed by pink fruits enclosed in orange arils. The leaves color a beautiful crimson-scarlet in fall. Stems and leaves are always a dark, polished green.
- E. radicans. A beautiful Japanese variety, grown mostly as a vine. When grown as a shrub it trails along the ground and roots, forming a thick



FORSYTHIA SUSPENSA

Euonymus radicans, continued

growth. When trained as a vine it climbs to 20 feet, with small, greenish white flowers in cymes, appearing in June and July. The fruits are pink, the cells separating and exposing the scarlet arils which cover the seeds. This and the variegated variety are described more fully under Hardy Vines on page 89.

EXOCHORDA. Pearl Bush

E. grandiflora. One of the finest shrubs of its season, but difficult to propagate and always scarce. Its long, loose sprays of large, pure white flowers open in May, in such profusion as to give the shrub a very rich effect. In the bud form they look like pearls strung on slender threads. The bush grows 8 to 10 feet high, and is one of the most distinctively ornamental shrubs in cultivation.

FORSYTHIA. Golden Bell

These splendid old shrubs, growing 8 to 10 feet tall in good soil, light up the garden with glinting masses of yellow, very early in spring, before the leaves appear, and usually blooming with the crocuses, which are frequently planted in front of and beneath them. All are of strong growth, entirely hardy, with curving branches that sometimes root at their tips; stems and leaves retain their color until late fall.

- F. intermedia. One of the most floriferous, with slender, arching branches, and dark green, lustrous leaves. It blooms so early that it is frequently covered with its bright golden flowers while the ground is covered with snow, and is one of the very first promises of the bright and beautiful spring days to follow.
- F. suspensa. Long, curving branches, used for covering arches and trellises.
 - var. Fortunei. The handsome, more erect form generally known.
- F. viridissima. The flowers of this variety are a little deeper yellow than in other sorts, and are sometimes twisted. The bush is not quite so hardy as the others of the species, and it is best to give it some slight protection in winter in northern latitudes.

HAMAMELIS. Witch Hazel

H. Virginiana. Valuable because its fringe-like yellow flowers open so late in fall—often in November—when there are few other blossoms outdoors anywhere. Grows to to 15 feet tall, with fine leaves that color to yellow, orange or purple in fall and drop before the bright yellow flowers with narrow, twisted petals appear, making them quite conspicuous among bare branches. Likes a moist, sandy, or peaty soil and partial shade.



DOUBLE ROSE OF SHARON



PANICLED HARDY HYDRANGEA

HIBISCUS SYRIACUS. Althæa

The Altheas (Rose of Sharon) bloom in August and September, showing many rich shades of all colors. They are very hardy, easily cultivated, and will bloom until their growth is cut short by frost. Grown in standard form they make good specimens, 8 to 10 feet high, resembling small flowering trees; planted thickly they are popular for flowering hedges, as they will endure considerable pruning. This should be given in winter. Besides the popular and handsome Double Red, Rose, Blue, Furple, White, Striped and Variegated-leaved, we offer the following choice named sorts:

Admiral Dewey. Pure white; double.

Ardens. Bluish purple; distinct; double.

Cœlestis. Single; flowers blue.

Comte de Haimont. Full, double flowers; delicate pink.

Duchesse de Brabant. Large, double, reddish lilac flowers.

Fleur de Panache. Double; variegated white and pink, with high, full center.

Jeanne d'Arc. Best of the white, double Altheas.

Hardy and free-flowering.

Lady Stanley. Double; blush-white.

Lucy. Broad petaled, double rose with crimson center.

Meteor. Deep crimson; very bright.

Princess Vosens. Semi-double; deep rose, with crimson center and white eye.

Purple Queen. Large-flowered, double purple.

Ranunculæflora. Double, with full high center, petals notched; blush-white, crimson at base.

R. W. Downer. Small-flowered, double red.

The Banner. Variegated pink and white.

Totus albus. Pure white, single flowers of fine size and great beauty.

Violacea. Large flowers of reddish violet.

HYDRANGEA

Such a showy class of shrubs is naturally well known and very generally planted. *H. paniculata* and its varieties are quite hardy anywhere. The more tender garden varieties need some protection in cold climates. The great flower-heads last for a month or more in perfect condition.

H. arborescens alba grandiflora. Upright, growing 4 to 8 feet high, with bright green leaves and flattopped trusses of white flowers in summer.

H. Hortensis Japanese, or Garden Hydrangea.

The fine old sort so much used for porch decoration and Easter forcing. Its flower-heads are pink or blue, according to the soil used. The Hortensis varieties die down in winter and grow 2 to 3 feet high in summer.



BUSH HONEYSUCKLE (see page 69)

Hydrangea, continued

H. Hortensis, var. Otaksa. Of dwarf, dense habit, with large heads of pink or blue flowers.

var. ramulis pictis. A red-stemmed variety, carrying immense heads of deep rose or light cherry flowers.

var. Thomas Hogg. Great flower-heads of purest white. Very choice and beautiful.

H. paniculata grandiflora. Panicled Hardy Hydrangea. Familiar to almost every one as the most conspicuous shrub in any collection during August and September. Its massive plumes of white flowers bend the branches with their weight, changing finally to pink and bronzy green. The shrub shows best to advantage when grown in rich beds or masses and cut back severely every spring before growth starts. Grown in this way it produces fewer flower-heads, but much finer ones. Sometimes grown in tree form, making a strong, vigorous bush 6 to 8 feet high.

HYPERICUM. St. John's-wort

H. Moserianum. Gold Flower. A showy, half-pendulous shrub, growing only a foot or two in height, and fine for massing or for growing in perennial borders, or in front of high shrubbery. Its glossy, bright yellow flowers are two or more inches in diameter and tufted with masses of

yellow stamens, blooming in midsummer. May be grown in shaded piaces where few other plants will thrive.

KERRIA. Globe Flower

K. Japonica fl. pl. Double-flowered Corchorus. Has polished green leaves and stems, brightened with a profusion of large, rich, yellow, double flowers, resembling small cactus dahlias, throughout the summer. A handsome, graceful old shrub, with long, slender branches, 6 to 10 feet long. var. variegata. Of slender, graceful growth, with small, narrow leaves, distinctly edged with white. Flowers same as the type.

LIGUSTRUM. Privet

Besides being one of our best hedge plants, the different species of the Privet form interesting groups on the lawn. They are almost evergreen, and of dense, shapely habit. Their white flowers grow in pretty sprays, are fragrant, and followed by berries of different colors.

L Amurense. Amoor River Privet. The Chinese variety, hardier than the others, growing 8 to 12 feet high, with dark green leaves, which persist almost through the winter. Evergreen in the South. Bears erect panicles of handsome white flowers in June, followed by black berries. The best for hedges.

Ligustrum, continued

- L. Ibota. A fine and hardy border shrub, of spreading habit, growing 8 to 12 feet tall, with curving branches and leaves of grayish green. Its pure white flowers appear in June, to be followed later by bluish black seeds.
- L. ovalifolium. California Privet. A species of unusual beauty that has become the most popular of all hedge plants. Untrimmed it grows stiffly upright to 8 or 12 feet. For groups and specimens it is equally pretty, and its shining leaves give it value for porch and terrace decoration when grown in standard form. Can be sheared to any desired form. Flowers in June in dense, upright panicles.
- L. Regelianum. The horizontal, sometimes drooping branches are distinctly beautiful. The plant is dense and compact, growing 6 to 10 feet in height, with longer leaves than other varieties. Blooms in June and July with panicles of white flowers.
- L. vulgaris. The familiar shrub of old gardens, with leaves of grayish green, and beautiful panicles of walte flowers in June; shining black berries. Grows to 10 feet.

LINDERA. Spice Bush

L. Benzoin. Mostly listed under Benzoin. Grows best along the edge of water as it needs moist, loamy soil. Has bright yellow fragrant flowers in early spring before the leaves appear. Covered with bright scarlet berries in early fall, when its leaves turn to bright yellow. Grows 6 to 10 feet tall and makes a handsome specimen plant.

LONICERA. Bush Honeysuckle

The shrubby Honeysuckles have bright and pretty fragrant flowers, followed by showy berries that last much longer. All are of neat, attractive habit, and grow well in ordinary soils.

- L. fragrantissima. In sheltered situations the dark green leaves of this shrub are retained nearly all winter. Its pretty pink and white flowers in early spring are numerous but not showy. Their fragrance is delightful. Is easily trained into a handsome bush, 6 to 8 feet high.
- L. Morrowi. Japanese Bush Honeysuckle. Grows only 4 to 6 feet, tall and spreading. In early spring, its pure white flowers are quite attractive, but it is valued chiefly for the brilliant red fruits which appear in August and are persistent through the fall.
- L. Tatarica. TARTARIAN HONEY-

SUCKLE. One of the best species, 8 to 10 feet tall. Its fine pink flowers in late spring contrast beautifully with its bright green foliage, but its chief charm is its wealth of orange or red berries which literally cover the plant in summer and autumn. All the varieties are noted for their bright berries.

var. alba. A beautiful, tall bush, with creamy white flowers in May and June.

var. grandiflora. Large, bright red blossoms, striped with white.

var. virgiñalis alba. The large, pure white blossoms of this variety are quite fragrant.

MYRICA. Wax Berries

M. cerifera. WAX MYRTLE. A handsome shrub, 5 to 8 feet tall, with bright green leaves. It is unique and ornamental, when bearing its great crop of bluish white berries coated with wax.

PEONIA

- P. Moutan. Handsome, flowering shrubs, attaining a height of 4 to 6 feet with proper care. The flowers are remarkably striking, of gorgeous colors and enormous in size, often 6 to 8 inches across. Very effective amongst shrubs or in borders, rivaling the rose in beauty of bloom.
- P. Banksi. Rosy blush; very large, fragrant flowers. One of the best.

See page 102 for Herbaceous Peonies.

PAVIA. Dwarf Horse-chestnut

P. macrostachya. A handsome dwarf species of Horse-chestnut that forms a broad, round bush of deep green, beautiful with upright spikes of white flowers in midsummer. A most effective and striking shrub.



PÆONIA MOUTAN



MOCK ORANGE FLOWERS

PHILADELPHUS. Mock Orange

The Mock Orange is undoubtedly one of the best-known and most popular shrubs, and in spite of the great numbers of new plants which have been introduced, the old Philadelphus holds its own and more freely than ever. It is also known as Syringa in some localities. The shrubs are usually tall, vigorous growers, with large foliage and flowers, and so are valuable for backgrounds, screens, grouping and specimens. Their flowers are very sweet-scented, milk-white, in most cases, and beautiful for cutting.

- P. coronarius. Garland Syringa. A fine old form, 8 to 10 feet tall, that blooms among the earliest and in very graceful sprays. Its large, showy flowers are delightfully scented.
 - var. aureus. A striking shrub of medium size, with golden yellow leaves that remain bright through the season. Valuable for contrastive grouping. var. alba flore pleno. Has partially double, highly fragrant flowers.
- P. grandiflorus. The most vigorous species of the group, growing to feet high. Its long, irregular branches are clustered with large, slightly fragrant flowers in June.
- P. Gordonianus. Strong-growing, 8 to 10 feet tall, and large-flowered; valuable for its late-blooming season in July.

- P Lemoinei, var. Boule d'Argent. Of dwarf, compact habit, only 4 to 6 feet high; flowers large and fine; semi-double, blooming in June; very fragrant. var. Candelabre. Blooms with remarkable freedom in dense, erect spikes in June. Grows 4 to 6 feet high.
 - var. erectus. A fine variety of erect growth, with good foliage and free-blooming habit; its clusters of fragrant, creamy white blossoms open in June
- P Zeyheri, var. speciosissimus. Of medium growth, and graceful habit, growing 6 to 8 feet high. The branches curve slightly at the tips, displaying all the better their profuse inflorescence of large, pure white, fragrant flowers. Showiest shrub of its group.

POTENTILLA

P fruticosa. Shrubby Cinquefoil. A bright-flowered little shrub that thrives in moist places where many others refuse to grow. Of upright growth, with narrow, compound, silky foliage and bright yellow flowers from midsummer until frost. Has peculiar shreddy bark.

PRUNUS. Flowering Plum and Almond

The Flowering Almonds are pretty dwarf bushes that bloom quite early and are very showy in spring. Their slender, leafless, upright branches are entirely hidden by stemless, very double flowers of pink and white.

- P amygdalus communis, var. alba flore pleno. Flowers pure white, very double, appearing in early spring. Bush grows 2 to 4 feet high.
 - var. rosea flore pleno. Pretty pink flowers; very double. Habit of growth and flowering same as the type.
- P. triloba fl. pl. Double-flowering Plum. A charming shrub or small tree, 3 to 5 feet high, of spreading, vigorous growth. Very early in spring before its leaves appear the whole tree is decked in a fleecy cloud of very double, light pink blossoms. Its effect on a still leafless landscape is very bright.
- P. Pissardi. See Trees, page oo.

PYRUS

P. arbutifolia (Sorbus arbutifolia). RED CHOKEBERRY. An upright shrub, 6 to 12 feet high, white or tinged red flowers in April and May, followed by dull red, pear-shaped fruits \(\frac{1}{4}\) inch in diameter. Distinctly ornamental both in flower and fruit.

RHAMNUS. Buckthorn

R. catharticus. The dark foliage masses of this dense, twiggy bush are relieved by masses of attractive white flowers in June and July. They are followed by showy black fruits. A good hedge plant. Grows 6 to 10 feet high. Will stand shearing well.

RHODOTYPUS

R. kerrioides. WHITE KERRIA. An attractive shrub of medium growth, 3 to 6 feet high, with good foliage and large, single white flowers late in May. The black seeds which follow are odd and showy.

RHUS

- R. Cotinus. Purple Fringe Tree; Smoke Tree. A unique and conspicuous spreading shrub or small tree, 10 to 12 feet high, with large leaves. These are overhung in midsummer by cloud-like masses of very light, mist-like flowers, having the appearance of smoke at a little distance. Foliage changes to brilliant shades of yellow and red in autumn.
- R. glabra. SMOOTH SUMAC. Grows to a low tree, 10 to 15 feet high, with an open crown and com
 - pound leaves. Flowers in July in panicles followed by crimson or brown fruit clusters which persist all winter. Foliage colors beautifully in autumn. Fine for massing.
 - var. laciniata. Much like the type, but growing only 8 to 10 feet with deeply cut leaflets producing a fern-like effect, and which turns to rich crimson in fall
- R. typhina. STAGHORN SUMAC.
 Grows to 30 feet, and when trained to tree form, very picturesque. Flowers in June and July in dense terminal panicles, followed by red fruit with crimson hairs.
 - var. laciniata. Has deeply serrate foliage. Best effects are had when the branches are cut close to the ground, causing it to send up strong shoots which produce the largest leaves. Its brilliant fall color makes it invaluable.

RIBES. Currant

The Flowering Currants are much prized for their wealth of bright flowers in early spring, and their pervading spicy odor. The leaves are glossy and turn brilliant colors in fall. All are quite hardy, and grow 5 to 8 feet tall.

R. aureum. GOLDEN CURRANT.

Fragrant yellow flowers in clusters in early spring, followed by dark brown fruits.

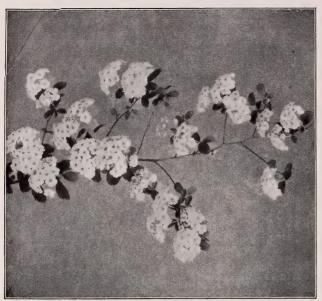
- R. Gordonianum. The beautiful rose-colored blossoms of this hybrid are borne in pendent racemes in May. A showy, upright grower.
- R. sanguineum. Red-flowering Currant. A large, upright shrub with red-barked twigs and reddish purple flowers borne in long racemes in early spring.

ROBINIA. Acacia. Locust

- R hispida. An elegant shrub, 2 to 3 feet tall, with light green pinnate leaves and long, graceful clusters of pea-shaped, rose-colored flowers in June, often throughout the summer.
- R. Neo-Mexicana. A similar shrub of more vigorous growth, 5 to 6 feet tall, with bright red flowers and longer compound leaves with 15 to 21 leaflets.



GOLDEN ELDER (see page 72)



BRIDAL WREATH SPIREA

SAMBUCUS. Elder

Although these shrubs are attractive in flower and fruit, they are chiefly grown for their beautiful leaves. They grow well in all soils and must have vigorous pruning to keep them in shape.

- S. Canadensis acutiloba. American, or Sweet Elder. One of the finest of our native shrubs which, because it is so common, is little appreciated. No more beautiful ornament to the grounds can be planted; its great handsome cymes of delicate, white, fragrant flowers in June and July, creating a most artistic effect when borne aloft above the compound foliage. These are followed by large clusters of fruit, from which the well-known elderberry wine or preserves are made. The shrub grows 6 to 10 feet tall and is distinctly ornamental at all seasons.
- S. nigra, var. aurea. Golden Elder. Contrasted with other shrubs, the golden yellow leaves of this Elder give heightened effects in tone and color. Flowers white, in flat-topped cymes in early summer. It can be pruned into a neat, compact little bush, or grows naturally to 10 or 15 feet.

var. variegata. Variegated Elder. Leaves are quaintly mottled with white and yellow. Flowers and growth like the type.

var. laciniata. Cut-leaved Elder. The leaves of this variety are fern-like in formation, and the shrub is of half-drooping habit. One of the finest in cultivation, being especially effective in masses. Grows 8 to 10 feet.

S. racemosa. Red-fruited Elder. Of somewhat stockier growth than the other varieties, with white flowers in cymes, followed by red fruits. Blooms in early summer.

var. plumosa aurea. Beautiful, golden, finely divided fern-like foliage.

var. tenuifolia. With foliage similar to the Cut-leaved Elders, on a more compact plant.

SPIRÆA

All the Spireas bloom with the riotous extravagance which makes them quite striking. A good collection of them will give flowers all through the season. There is a great variety in their inflorescence, and in the habit of the shrubs, so that there can be no danger of monotony in such a collection. All the species are very hardy, easy to grow in many soils and situations, and will be found useful for specimens, groups, screens, borders, ornamental hedges, etc.

- S. arguta. Snow Garland. A slender dwarf, 3 to 5 feet high, with branches a snowy mass of clear white flowers in early May.
- S. ariæfolia. Dense and bushy; covered with white flowers in July.
- S. Bumalda. A spreading, low bush, but 2 feet high with dark leaves brightened by corymbs of pretty, light pink flowers in May, and at intervals all summer.

var. Anthony Waterer. A new form of better habit than the type, with larger corymbs of rosy crimson.

- S. Billardi. A narrow, dense shrub, 6 feet high, with dense panicles of rich pink flowers in July and August, also in fall.
- S. callosa alba. (S. Japonica, of some). Of compact growth, 4 feet high, with upright branches and bluish green foliage; crowded with large, flat clusters of white flowers nearly all summer.

var. atrosanguinea. Dark red or rose flowers in June and July.

var. rosea. Has panicles of pretty, rose-colored flowers all summer.

var. superba. Rosy white flowers, produced with great freedom.

- S. Reevesiana. Reeves' Double Spirea. Tall and graceful, 5 to 8 feet high, with dark, bluish green lance-like foliage, and large, pure white double flowers in May and June.
- S. Douglasi. Upright in growth to 5 or 7 feet, with reddish brown branches and narrow, oblong leaves. Bears spikes of beautiful, deep rose-colored flowers in July and August.
- S. opulifolia. This and the next are sometimes classed under Physocarpus or Ninebark. They make a much stronger growth than most sorts growing rapidly upright, to 10 feet, although their branches droop when laden with white flower

Spiræa opulifolia, continued

umbels in June. For mass-plantings and when used as the background of shrub borders they are very valuable.

var. aurea. Of similar habit. The leaves are bright yellow in spring, gradually changing to golden bronze in fall.

- S. prunifolia flore pleno. BRIDAL WREATH. Among the earliest of the double Spireas to bloom, and very showy at that early time. It is very graceful and plume-like in effect, the branches being covered thickly almost their whole length with small, double white flowers, and sweeping outward in gentle curves. Grows 5 to 7 feet tall, but will stand pruning to any height.
- S. salicifolia. WILLOW-LEAVED SPIREA; MEADOW-SWEET. A charming native species, with crowded panicles of pink flowers in midsummer. Grows upright, 5 feet high.
- S. sorbifolia (Sorbaria). An upright shrub, 3 to 5 feet tall, with compound, ash-like leaves and lanceolate leaflets. Its habit of growth and peculiar grace of its foliage make it a most desirable shrub for the lawn. Flowers in midsummer in large panicles of pure white flowers.
- S. Thunbergi. Thunberg's Spirea. Distinct and most attractive at all seasons, with feathery masses of pure white flowers in early spring; in autumn its narrow leaves change to bright red and orange. Forms a dense, feathery bush, 3 to 5 feet high.
- S. Van Houttei. Van Houtte's Spirea. Growing to 5 feet tall, this is one of the finest ornamental shrubs in our whole collection, and much used in all good landscape work. Its branches droop with singular grace under their white burden of flowers in late spring.

SYMPHORICARPUS

These shrubs are valued for their bright, persistent fruits, and for use as undergrowths in densely shaded places, where little else will grow. The two species below are of slender, medium growth, and will flourish under trees, or in almost any soil.

- S. racemosus. Snowberry. Flowers inconspicuous, rose-colored, in June and July; leaves thin, dark green; fruits large, milk-white, clustered, persistent until late in winter. Grows 3 to 5 feet tall.
- S. vulgaris. CORAL BERRY. Similar to the Snowberry, except that its fruits are red, and that the smaller red berries cluster in thick ropes about the stems, which droop beneath their weight.

SYRINGA. Lilac

The Lilacs appear to best advantage and are most enjoyable when massed in groups. Such groups are most effective when planted with only a few varieties in but one or two colors. But the groups may be abundant and each one present different colors. They are easily transplanted any time between fall and spring. Rich, moderately moist soil suits them best. After their blooming season, remove the dead flowers, which always give an untidy appearance, and do any necessary pruning. Pruning in winter or spring destroys flowers.

The newer sorts of lilacs usually bloom freer than the old ones, and have larger flowers in longer plumes, in a multitude of exquisite new shades. We have chosen among the best sorts varieties that will give a good range of color and a succession of bloom from May until midsummer.

- S. Japonica. Japan Tree Lilac. The only tree form in the group, growing to 30 feet high; exceedingly handsome when in bloom, and valuable for prolonging the Lilac season well into June and July. The leaves are leathery, large and dark; flower-plumes 18 to 20 inches long, white, showy, scentless, carried well above the flowers. Makes a good specimen.
- S. Josikæa. Hungarian Lilac. A variety of fine habit that is valuable for its late bloom. Upright, 8 to 10 feet high, with stout branches and broad, dark leaves; flowers lilac-purple, large, in large panicles, late in June.
- S. Persica. Persian Lilac. A fine old species with slender branches and narrow leaves; it seldom grows more than a few feet high. Its pale lilac flowers are very fragrant and borne in large, loose panicles in late spring. Very graceful.



VAN HOUTTE'S SPIREA



SINGLE LILAC, MARIE LEGRAYE

Syringa, continued

- S. Persica, var. alba. White Persian Lilac. Of similar habit, with white flowers.
 - var. laciniata. Cut-leaved Persian Lilac. Reddish purple flowers; leaves deeply incised. Otherwise same as the type.
- S. Rothomagensis. ROUEN LILAC. Large shrub
- 10 to 12 feet high, with reddish purple panicles of great size and beauty in May.
- S. villosa. A bushy shrub, rarely over 6 feet high, with broad, elliptic leaves and pinkish lilac flowers in long, slender panicles.
- S. vulgaris. Common, or Old-fashioned Lilac The familiar species of all fine old gardens, with

heart-shaped leaves and dense panicles of lilac flowers in May, still the most fragrant of any. Will grow into a small tree, 20 feet high.

var.alba. Common White Lilac. Similar to the former, with pure white, very fragrant flowers.



The single Lilacs below all grow 6 to 8 feet high and bloom in May.

S. alba grandiflora. Very large white flowers in heavy panicles.

Charles X. Of exceptionally strong, rapid growth; large, shining leaves and rather loose trusses of reddish purple flowers.

Marie Legraye. The great forcing Lilac. Flowers pure white, in large panicles.

Rubra de Marley. Rich, rosy purple flowers. Souvenir de Ludwig Spæth. Dark purplish blue flowers in long panicles

Frau Bertha Dammann. Bears immense panicles of single white flowers. One of the finest white Lilacs.



DOUBLE LILAC, MME. LEMOINE

Double Lilacs.

The double-flowered Lilacs are more dwarf and compact in habit than the single species, but do not bloom quite so freely. Their flowers are of even better substance, however, and last longer.

Alphonse Lavalle. Very large panicles of a beautiful blue color, shading toward violet.

Belle de Nancy. Great panicles of brilliant satiny rose, with a lighter, almost white center.

Jean Bart. Rosy carmine flowers in large, compact plumes.

La Tour d'Auvergne. Of notably strong growth; flowers violet-purple, of fine size.

Mme. Abel Chatenay. Pure white flowers in very large panicles.

Mme. Casimir-Perier. White flowers in large, grace-

ful panicles.
A profuse
bloomer

Mme. Jules Finger. Large, satiny rose flowers in strong, erect plumes. Quite fragrant.

Mme. Lemoine.

Superb white flower-panicles. Fine and showy

President Carnot. Flowers of pale blue, marked in their centers with white. T. Japonica (T. juniperina). Grows to to 12 feet high, with pink flowers in early spring.

VIBURNUM. Arrowroot

This is a showy group of shrubs that usually grow from 5 to 10 feet high, bloom lavishly in spring, bear pretty fruits and color to red or purple in fall.

V. acerifolium. Maple-leaved Viburnum. Has slender, upright branches, 3 to 5 feet tall, with maple-like foliage and creamy white flowers in late spring, followed by black berries.

V. dentatum. Arrowwood. A bushy shrub with bright green, heart-shaped leaves, which fade into rich purple and red. Creamy white flowers in flat cymes in late spring or early summer. Berries blue-black. Grows 8 to 12 feet in height.



JAPAN SNOWBALLS

President Grevy. Flowers of a beautiful blue color, in huge panicles.

TAMARIX. Tamarisk

The Tamarisks are hardy shrubs of strong but slender, upright, spreading growth. Their foliage is as light and feathery as asparagus, and they are valuable for planting near the seaside.

- T. Africana (T. parviflora). Bright pink flowers in slender racemes in April and May. Shrub is 15 feet tall, and is very showy with its reddish bark. var. purpurea. (T. tetandra purpurea). Grows to 12 feet and has purplish pink flowers in May.
- **T.** Chinensis. Flowers pink, in large, loose, usually nodding panicles; often 15 feet high.
- T. Gallica. Delicate pink or white flowers in slenderpanicled racemes in spring or early summer; leaves bluish green. Grows to 15 feet high.

var. Indica. Pink flowers in longer, more wand-like sprays. Foliage is dull green.

- V. Lantana. Wayfaring Tree. Grows 10 to 15 feet tall, with heart-shaped crinkled leaves and white flowers in May and June; fruits bright red.
- V. Lentago. SHEEPBERRY. Grows to be a small tree, 30 feet high. White flowers in cymes in May and June. Large, oval, blue-black fruit.
- V. macrocephalum. Chinese Viburnum. Grows 10 to 12 feet high, with creamy white flowers.
- V. Opulus. Cranberry Bush. A very decorative native shrub, growing 8 to 10 feet high, with white flowers in May, followed by scarlet fruits. var. sterilis. Guelder Rose; Snowball. Well known; even more showy than the type when covered with its great clusters of white flowers.
- V. tomentosum, var. plicatum. Japan Snowball.

 Of better habit than the familiar older form, with handsome, plicate leaves and more delicately formed, whiter flowers in clusters 4 inches across in May and June; red fruit.

WEIGELA. See Diervilla, page 64.



A FIELD OF HYBRID PERPETUAL ROSES AT OUR NURSERY

HARDY ROSES

We give much space to Rose-growing. It is one of our leading specialties. The demand for Roses of all kinds increases so greatly every year that we now find it necessary to devote about forty acres of ground and twenty large greenhouses to their culture and propagation.

Only the hardier Roses are given a place in this General Catalogue. A full list of all varieties that we grow will be found in our No. 2 Catalogue, which is sent free to all applicants.

Points in Rose Culture

The Rose delights in an open, airy situation, unshaded by trees or buildings. All the types are very partial to clay loam, but will do well in any ordinary soil if enriched with well-rotted barnyard manure. Dig the soil up thoroughly to the depth of 12 or 15 inches, as rose roots penetrate deep when they have a chance. Do not raise the surface of Rose beds above the surrounding surface. They suffer less from drought when left level with the turf. After the plants have been set out, keep the soil loose to the depth of an inch or two, by frequent stirrings. An occasional soaking with weak manure water is a great help to Roses of all sorts.

ROSES IN POTS.—For house culture the Tea, Bourbon and China Roses should be selected. These will give a succession of bloom if treated in the following manner: Drain the pots well with broken bits of crock; mix one part of well-rotted cow manure with two parts of light, friable soil, and press firmly about the roots in potting. Keep well watered during the summer, more scantily in fall and winter. Pinch off all flower-buds until winter, and then give all the sunlight possible. Keep your plants clean and growing. About 60 degrees is the best temperature for window or general indoor culture.

HYBRID REMONTANT, or PERPETUAL ROSES

These are the June Roses, so admirably suited for garden culture, the formation of Rose-beds, hedges and permanent plantations, where hardy varieties of Roses are desired. They are of easy culture and luxuriate in a deep, rich soil. They are benefited by mulching of leaves or strawy manure placed around the roots in fall. Prune according to the habit of growth, cutting back close all weak shoots, and shortening the long canes to a convenient length.

In May and June these Hardy Garden Roses are brilliant with large, perfumed flowers of richest

Hybrid Remontant Roses, continued

colors, far excelling the Everblooming class in size and vivid effects. Many of those offered in the list below give occasional flowers through the summer, and again in autumn perfect even finer blossoms than those which have been the glory of the garden in the month of Roses—June.

Alfred Colomb. A superb brilliant crimson Rose, of very large, full form, extremely fragrant; blooms freely and grows well.

Anne de Diesbach. Very large and fragrant flowers of a rich carmine color. A notably hardy and superior garden Rose.

Baron de Bonstetten. Large, deep, full flowers of dark crimson-maroon. A splendid, highly scented flower.

Baroness Rothschild. A grand pink Rose, of full cupped form and exquisite pale pink color. Short-jointed, very hardy, late-blooming, scentless.

Brightness of Cheshunt. Flowers of medium size, produced very freely, of a peculiar, vivid, brownish red; gives a profusion of blooms in fall.

Captain Hayward. High-built, large, full, handsome flowers of crimson-carmine. Distinct. vigorous and free-flowering.

Clio. A Rose of perfect form and finish, with broad, thick petals, high, full center, beautiful from pointed bud to fully opened flower. The color is

delicate satiny blush, with slightly deeper center. The plant is strong and blooms freely, displaying its great flowers boldly on good stems against large, rich leaves.

Comte de Paris. Large, fine and full; glinting red, heightened and shaded with lighter and darker touches of crimson.

Climbing Victor Verdier. Bright carmine-rose; of strong, climbing habit.

Coquette des Alpes. A freeblooming Rose of medium size; white, tinged with pale rose. Exceedingly dainty and attractive.

Coquette des Blanches. A finely formed white Rose, with shell-shaped petals evenly and daintily arranged. Of free growth and bloom, with fine dark leaves and almost thornless stems. Newly expanded flowers are sometimes tinted with blush.

Crimson Queen. Brilliant crimson, shaded with maroon. Unusually free-blooming.

David K. Williamson (Hybrid Perpetual). Rich, rosy carmine. An extra-large flower with broad, heavy petals. Dinsmore. Large, double flowers of deep crimson; plant dwarf, bushy, truly a perpetual, as it blooms all summer.

Dr. William Gordon. A handsome Hybrid Perpetual Rose of a brilliant satiny pink. The flower is full double and deep, and the plant is stronggrowing and vigorous.

Duke of Edinburgh. Brilliant crimson-scarlet, shaded with marcon.

Duke of Wellington. Large, full, sweet, well-shaped; bright velvety red, shaded maroon, except at center, which burns with fiery red.

Earl of Dufferin. Rich crimson-maroon, with dark and velvety shadings. The flowers are large, full, globe-shaped, thick-petaled and very fragrant. Grows well and blooms freely, with many handsome buds in autumn. One of the finest dark Roses

Eclair. Large and handsome fiery red flowers.

Fisher Holmes. Large, moderately full and finely imbricated flowers of rich, glowing crimson.



COQUETTE DES BLANCHES ROSES

Hybrid Remontant Roses, continued

Francois Levet. A very vigorous and exceptionally free-blooming plant, with well-formed, cherry-red flowers of medium size.

Eugene Furst. Velvety crimson, with darker shadings; large, full, shapely, fragrant.

Frau Karl Druschki. The finest white Hybrid Perpetual Rose, with large, full flowers of splendid form.

General Jacqueminot. The famous bud and forcing Rose, quite as well adapted for garden culture by its fine, hardy habit. Its unusually fragrant flowers are a brilliant, glowing crimson, not very full, but large and extremely effective.

General Washington. Very large and double; deep crimson-red; opens wide and flat.

Gloire de Lyonnaise. Beautiful salmon-yellow, with full, fragrant flowers.

Gloire de Margottin. Brilliant luminous scarlet flowers of fine size and shape; semi-double, with long, handsome buds; quite fragrant. Vigorous and free-flowering.

Hugh Dickson. Magnificent crimson, shaded with scarlet. Flowers very large, of perfect shape and full double. Plant strong, vigorous and productive.

Hugh Watson. Clear, rich crimson, shaded with carmine. Exquisitely perfumed. Flowers large, full and perfect in shape. Plant vigorous and sturdy and a strong and constant bloomer.

J. B. Clarke. A handsome extra-large Hybrid Tea Rose, of a bright, glowing scarlet, with dark crimson shading. The plant is exceedingly strong in growth with heavy foliage.

John Hopper. A fine and free-blooming old sort, with large, full, handsome flowers of fresh, bright rose.

Jubilee. A notable Rose of recent introduction, that ranks among the best dark sorts. Deep, flashing crimson, with shadings of velvety maroon; very large and quite fragrant. Of compact, bushy growth, with good dark foliage and long flower-stems.

Jules Margottin. Bright cherry-red; large, well-formed, fragrant flowers; very double and free.

Louis Van Houtte. Vivid red, with crimson shadings; large, full; very distinct.

Mabel Morrison. A grand white Rose, similar to Baroness Rothschild in all save color.

Magna Charta. A hybrid China that is very fine early in the season; bright rose; large and full.

Madame Gabriel Luizet. Grand flowers of light silvery pink, produced quite freely; cup-shaped, very large, slightly fragrant; distinct, choice.

Marchioness of Londonderry. Ivorywhite flowers of great size and substance, perfectly formed, on stout stems; highly perfumed; free-blooming.

Marchioness of Lorne. Long, handsome buds, opening into large, full, cupped flowers, of rich, shining rose colors, shaded carmine; perpetual blooming.

Margaret Dickson. A large and handsome white Rose of extra vigorous growth. Its large petals are thick and shell-shaped, of good substance, tinted with flesh next the center. The foliage is dark and rich, displaying the grand flowers well.

Marie Bauman. Large, full, fragrant and finely formed; an exquisite shade of carmine-crimson.

Marshall P. Wilder. Bright cherry-red; of good size, perfectly double and very fragrant.

Mrs. J. H. Laing. An exceptionally handsome and free-blooming Rose, of vigorous growth and fine habit. The color is a soft and delicate shade of pink; the flower is large and well-formed, very fragrant and produced on good stems. A variety of especial value, as it blooms continuously in the open ground, and is also excellent for forcing, the buds selling at high prices.



JUBILEE ROSE

Hybrid Remontant Roses, continued

Mrs. R. G. Sharman-Crawford. Grandly formed flowers of a warm, delicate shade of pink; pale flesh on the outer petals, deep rose in the center. The large, thick petals are finely imbricated; the flowers are produced on splendid stems. The plant makes a vigorous growth and blooms from early summer until autumn.

Oakmont. Elegant peachy pink, large and fragrant flowers. Bush is a strong and constant bloomer and sturdy in growth. One of the finest Hybrid Perpetual Roses.

Paul Neyron. The largest Rose in cultivation, sometimes called the Peony Rose; color bright, fresh cerise-red. The plant makes a strong, healthy growth, and has clean, glossy foliage; blooms almost without intermission from June until late October.

Prince Camille de Rohan. A velvety blackish crimson Rose, of deep, distinct shade; large, full, very handsome.

Rhodocanachi. Large, full, perfectly formed flowers of rosy crimson, on superb long stems. Plant of good habit, free-blooming.

Roger Lambelin. Odd and striking flowers of medium size; deep crimson, with petal-margins of blush-white.

Soleil d'Or. Yellow is the one desirable color that has been lacking in hardy Roses. This new Rose is the result of a cross between Persian Yellow and Antoine Ducher. It is a fine, strong grower, producing superb, conical-shaped buds varying from gold and orange-yellow to reddish gold shaded with nasturtium-red. The flower is very full, large and globular, the petals in the center being well incurved. It is a robust, vigorous grower, with brownish wood and beautiful bright green foliage. M. Pernet, the raiser of this beautiful Rose, characterizes it as a perpetual bloomer. It was awarded first prize at the Paris Exposition and numerous gold medals throughout Europe.



SOLEIL D'OR ROSE

Silver Queen. Silvery blush, with center of delicate rose-pink; large, full, cupped; produced in great abundance.

Tom Wood. Cherry-red flowers of fine size and fullness; makes a strong, clean growth, well furnished with heavy foliage and bold, long-stemmed flowers; blooms with especial freedom in autumn.

Ulrich Brunner. A Rose of beautiful form and finish, very striking from its color of brilliant cherry-crimson. The bush is vigorous, blooming continually in the open air, and displaying its superb, glowing flowers on good stems.

Vick's Caprice. A novel, striped Rose, with ground-color of soft satiny pink, distinctly marked with white and carmine. It is large and full, with beautiful long buds that show the stripes to advantage.

HARDY CLIMBING ROSES

Anna Maria. Light pink, changing to blush; blooms in large clusters.

Baltimore Belle. Pale blush, nearly white; very double. Flowers in large clusters, the whole plant appearing a perfect mass of bloom.

Dawson. Blooms in large and showy clusters of pink, double flowers, resembling the Ramblers somewhat in general habit.

Empress of China. Light red, changing to pink when fully expanded. A free and continuous bloomer; flowers medium size.

Multiflora Japonica. Large clusters of fragrant, snow-white blossoms followed by red seed-vessels. Of strong, quick growth, and perfectly hardy everywhere.

Prairie Queen. Bright rosy red; large, compact and globular flower; blooms in clusters. One of the best

Ruby Queen. Ruby-red, with clear white center. Produces a charming effect when the plant is in full bloom.

Russell's Cottage. Dark crimson, very double and full, strong grower.

Setigera, or Prairie Rose. With large, single flowers of rosy pink, blooming in clusters after others are gone.

Seven Sisters. Crimson, changing all shades to white. One of the old-fashioned favorites.

Tennessee Belle. A strong, vigorous climber and free bloomer; bright rosy blush.



CRIMSON RAMBLER ROSE

THE RAMBLER ROSES

Crimson. The famous crimson-clustered climber, so extremely effective when grown on pillars and trellises. The plant is a vigorous grower, making shoots 8 to 10 feet long in a season. The foliage is large and glossy. The panicles of roses are large and remain perfect for several weeks. Perfectly hardy anywhere.

Dorothy Perkins. Clear shell-pink, with flowers borne in clusters; full and double, with crinkled petals. The foliage stays on until winter.

Lady Gay. Claimed to be far superior to Crimson Rambler of which it is a seedling and which it closely resembles in habit of bloom and vigor of growth. The flowers (in large loose clusters) are of a delicate cherry-pink color, fading to soft tinted white. The effect of a plant in full bloom with the combination of soft white flowers, cherry-pink buds and deep green of the foliage is indeed charming. It is perfectly hardy and unsurpassed for climbing work.

Ne Plus Ultra. An extra fine Rose of the Rambler type with strong, healthy foliage and immense

trusses of full crimson flowers a trifle deeper in color than the Crimson. Plant is a strong grower.

Philadelphia. An improvement on the Crimson, with larger trusses of flowers which are perfectly double and more deeply colored. The color does not fade out, and the foliage is handsome at all times. Splendid for covering pergolas and porches.

Pink. Similar to others of this group, but with pink flower-clusters.

Psyche. White, suffused with salmon-rose.

Trier. A strong-growing climber of the Rambler type, with great trusses of pale rose-colored flowers, changing to white. Blooms continuously all summer, and is a great improvement over White Rambler.

Yellow. Flowers of medium size, in immense clusters, very sweet-scented; a clear decided yellow. The hardiest of all yellow climbing Roses. It is a rampant grower, well-established plants often making a growth of 10 to 12 feet in a season.

White. Resembles Crimson Rambler in foliage and habit; flowers pure white.

CLIMBING TEA AND NOISETTE ROSES

Although tenderer than the preceding group, these are strong, healthy growers, blooming freely throughout the summer and autumn. The distinguishing characteristic of the Noisette class is their cluster-blooming habit. In the South, where they stand the winters, nothing can compare with them for beauty of bud and

Climbing Tea and Noisette Roses, continued

foliage. They are useful for growing in conservatories, pits and greenhouses at the North, where they reward the extra care and protection in producing thousands of magnificent blooms.

Climbing Meteor. A sport from Meteor. Makes shoots 12 to 15 feet long in a single season. Produces large, velvety crimson flowers in great profusion throughout the entire season. One of the finest climbers grown.

Marechal Niel. The noted canary-yellow Rose, with very large, full, globular flowers, of delightful

fragrance. Free-flowering; one of the finest yellow tea-scented Roses yet introduced.

Reine Marie Henriette. Bright cherry-red flowers, of strong growth; full and well formed; a grand pillar Rose in the South.

Wm. Allen Richardson. Orange-yellow; center copper-yellow; very rich.

THE HARDIEST EVERBLOOMING ROSES

Including Tea, China and Bourbon Varieties

These are only the Roses that really bloom constantly. They begin to bloom early in the season, or almost as soon as planted, and continue all through the summer and autumn months, until stopped by freezing weather, flourishing luxuriantly from Canada to Mexico. The flowers are of beautiful form and fullness, delightful fragrance, and embrace all the lovely shades and colors that Roses ever assume. In the North they require protection during the winter, and, being natives of a more genial climate, must not be expected to survive in the open ground where the temperature falls much below zero. Protection is easy to give, however. Before freezing weather, cut out all soft or unripened wood and remove most of the leaves. Take a little of the soil from one side of the bush to allow it to bend over easily. Bend it over to the ground and cover the whole plant with from 2 to 4 inches of earth. Over this place 4 to 6 inches of leaves, and keep in place with boards or boughs. Defer covering for winter until cold weather fairly sets in, as moderate freezing will not injure the bushes. Treated in this way, three winters out of four they will go through unharmed. Where winters are not severe a few evergreen boughs laid over the beds and a mulch of manure will be sufficient protection. These must be removed carefully and gradually, before growth begins in spring. A full list of Tea and other Everblooming Roses will be found in our No. 2 Catalogue.

Bridesmaid. Clear bright pink of an exquisite shade. Grown chiefly for its large, solid and handsome buds; the stems are good, the foliage glossy. Excellent also for bedding.

Duchesse de Brabant. Salmon-rose, with amber shadings,—a rich and peculiar color. The flowers are gracefully irregular and loose when expanded, but have elegantly pointed buds and a pervading peach fragrance. Extra vigorous and free in bloom.

Etoile de Lyon. One of the hardiest Roses in the Tea section, and so vigorous and free of bloom that it is unsurpassed for bedding. The blooms are very large, double, regularly formed and delightfully fragrant. Pale yellow, with golden center.

General McArthur. In all the Rose family we know of nothing that can compare with this in dazzling color, fragrance of flower or profusion of bloom. General McArthur is a Hybrid Tea Rose, as fragrant as a Rose can be, has good-sized flowers and blooms continuously. We have been growing it in our own place for many years, and, seeing it under all conditions, do not hesitate to recommend it to our customers, as the nearest approach to a perfect red Rose. The form of flower and bud is simply superb, and it lasts as long when cut as any Rose we have ever seen. The bud when first opening is the brightest crimson-scarlet, and the flower retains this perfect coloring until it drops its petals. Blooms continuously the whole season through and gives fine stems for cutting. See illustration, p. 82.

Golden Gate. Creamy white, delicately edged and tinged with rose and golden yellow. Grows and blooms freely.

Gruss an Teplitz. Sometimes callen Crimson Hermosa. One of the most valuable hardy crimson everblooming Roses for garden planting ever introduced. The color is dark rich crimson, passing to velvety fiery red, one of the very brightest colored Roses we know. Flowers large, full and sweet; very showy and handsome, blooms constantly, throwing



BUD OF ETOILE DE LYON

Everblooming Roses, continued

up fresh buds and flowers the whole growing season. It is a healthy, vigorous grower, entirely hardy here with usual winter protection.

Madame Joseph Schwartz. A fine, bedding Tea, with clustered, cup-shaped flowers of white, delicately flushed with pink.

Maman Cochet. The best pink Tea for bedding, on account of its vigor, hardiness, and lavish bloom. Flowers and buds are as large, full, perfectly formed and fragrant as those of any bud Rose grown under glass. The color is an exquisite silvery rose, with shadings of buff and salmon.

Marie Guillot. A choice, highly fragrant white Tea, with large, full, elegantly imbricated flowers of lemon-white.

Marie Van Houtte. Creamy white, tinged with rose on the outer petals; the whole flower is sometimes suffused with bright pink. Succeeds well outdoors in all sections, giving quantities of fine blossoms all summer.

Papa Gontier. A favorite forcing Rose, on account of its large, long buds, but also one of the best Roses for outdoor planting. In bud form its

thick, broad petals are dark, carmine-crimson lighter on the inner surface, which shows when they expand.

Perle des Jardins. A peerless yellow Rose of peculiarly rich color, varying from canary to golden yellow, in large, full, elegantly shaped buds and blossoms. Whether light or deep, the color has always a richness and delicacy peculiar to this Rose. This is one of the finest yellow Roses grown, and is a standard by which others are judged.

Souvenir de Pierre Notting. A handsome new Tea with splendid foliage and strong, sturdy habit of growth; flowers are large, perfectly full and double, of a rich orange-yellow, dashed and bordered with carmine-rose. Buds are long and pointed.

The Bride. Most beautiful of the White Tea Roses, and forced in numberless quantities every year. The great, solid flowers remain perfect long after cutting; the stems are long and stiff, the foliage large, dark and glossy.

White Maman Cochet. Has all the good qualities of the pink variety in the way of hardiness and blooming, but its flowers are beautiful silvery white and exquisitely fragrant.

POLYANTHA ROSES

Sometimes called "Fairy Roses," because of their small flowers, which are yet full and regularly formed,



GENERAL McARTHUR ROSE (see page 81)

with colors as fine as the larger Teas. Usually they are borne in great clusters, which, together with their neat, hardy, everblooming habit, make them valuable for bedding. Even in the North they require but little protection. For window culture they are also beautiful, and being so hardy they withstand well the conditions surrounding them when grown in the house. Given proper care and attention they can be kept in bloom all winter.

Clothilde Soupert. A grand free-flowering Rose; fine for bedding out or pot culture. The flowers are very double and handsomely formed, with outer petals pearl-white, shading to a center of rosy pink.

Mignonette. Clear pink flowers, changing to white; very double. Young shoots frequently carry from 40 to 60 flowers.

Mosella. Yellow Soupert. A valuable new Polyantha. Dwarf and bushy, a mass of bloom the whole year. Color light yellow, shading to white at edge of petals. Quite hardy; will stand the severest winters with but slight protection.



CRIMSON BABY RAMBLER ROSE

Polyantha Roses, continued

Parquerette. Pure white flowers of perfect camellia form, in clusters.

Pink Soupert. An excellent pink Rose, surpassing even Clothilde Soupert in freedom of bloom. Strong, healthy grower, and a fine, hardy bedding Rose. Dainty and effective.

Crimson Baby Rambler. A compact bush about 2 feet high, with broad clusters of crimson flowers like those of the Crimson Rambler. One of the finest bedding Roses ever introduced.

Pink Baby Rambler. All of the characteristics of the Crimson, but loaded down with great clusters of bright pink Roses.

White Baby Rambler. Same, with white flowers.

BENGAL AND BOURBON ROSES

Agrippina. Rich, velvety crimson; always full of blossoms. Few Roses are so richly colored and effective when used in masses.

Champion of the World. Quite as free-blooming, and so hardy as to require little protection in this latitude. The flowers are large, full, fragrant; deep, rich rosy pink.

Hermosa. Daintily cupped flowers of a pretty pink color. A fine, fragrant old favorite that is always in bloom.

Queen's Scarlet. Rich crimson-scarlet; a very free-flowering bedder.

Souvenir de la Malmaison. A superb old favorite, with great flowers of clear flesh-white, double to the center. One of the finest fall-blooming Roses.

HYBRID TEAS

Augustine Guinnoisseau. White La France. Just a tint of blush clouds its broad petals. The buds and flowers are extra large, full, sweet, and finely formed.

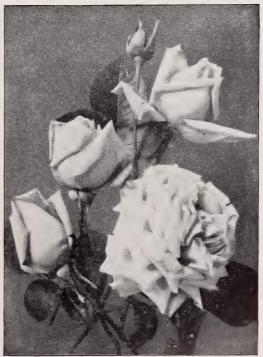
Helen Gould (Baldouin). One of the finest crimson Tea Roses with extra large flowers which are exquisite in perfume. Thoroughly hardy and a vigorous bloomer.

Kaiserin Augusta Victoria. Creamy white; sweetly fragrant; very full and large flowers and large, pointed buds. Very hardy and continuous bloomer.

La France. Delicate silvery rose, often silvery pink with peach shading. Very large, very double and of superb form. It flowers continually through out the season. The sweetest and most useful of all Roses. Deservedly a favorite with many rose-growers.

Meteor. A rich, dark velvety crimson, everblooming Rose. The flowers are of good size, very double and perfect in shape, either as buds or when fully opened. The plant is vigorous and remarkably free-flowering. A splendid sort for pot culture, and the best of all Hybrid Teas to bed for summer cut-flowers, as it retains its color well even in the hottest weather.

Olivia. A most beautiful deep, rich rose which bears handsome, double, pointed buds, much like La France in shape. The flowers are exquisitely



LA FRANCE ROSE

Hybrid Tea Roses, continued

scented and the plant is a rapid, strong grower, a free bloomer and perfectly hardy.

Souv. President Carnot. A strong, clean, healthy grower, with handsome, bronze-green foliage and large, elegant buds. The flower is of fine size and shape, with heavy, thick, shell-like petals. Color delicate rosy flesh, shaded a trifle deeper at the center. A very profuse bloomer.

JAPANESE TRAILING ROSES

Although of naturally trailing habit, Rosa Wichuraiana and its hybrids grow vigorously when trained upright. Their most important use, however, is as a ground cover, for which their free, dense growth, evergreen foliage, pretty flower-clusters and red berries fit them admirably.

ROSA WICHURAIANA

A low, trailing species, its stems creeping on the earth as closely as ivy, and forming a dense mat of very dark green, lustrous foliage. The flowers are produced in greatest profusion, in clusters, after the June Roses are past, and continue during the season. They are single, pure white, with yellow stamens and delicately fragrant. Valuable for covering banks, rockeries, slopes and beds among shrubs. Hardy in all except very cold climates.

Wichuraiana Hybrids

Debutante. A new hybrid, with flowers of charming light pink, especially pretty in the bud.

Manda's Triumph. Flowers pure white, very double, produced in clusters of from ten to twelve, on small side shoots, literally covering the plant and standing well above the foliage.

Pink Roamer. A hybrid of the Sweetbrier, which it somewhat resembles in character of bloom, while the very rampant growth partakes more of the



BUD OF SOUY. PRESIDENT CARNOT



TREE ROSE

Wichuraiana type. The single flowers are over 2 inches in diameter, bright rich pink, with large, silvery white centers and orange-red stamens; delightfully fragrant.

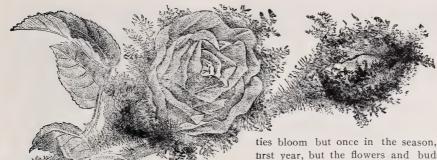
South Orange Perfection. Similar to the preceding in growth. Remarkably free-flowering; when in bloom is a mass of the most perfectly formed double flowers, about 1½ inches in diameter, soft blushpink at the tips, changing to white.

Sweetheart. One of the newest hybrids. Large flowers, pink in the bud, opening white.

Universal Favorite. Vigorous grower, with long, branching shoots that are covered with dense, bright green, shining foliage. The flowers are very double, 2 inches and over in diameter, of a beautiful rose color, similar to Bridesmaid, and very fragrant.

TREE ROSES

The Tree Roses are grafted on hardy stems, 4 to 5 feet high, and thus form tree shapes. When in full bloom they are very handsome, and are becoming more popular every year as the demand for formal gardens grows. It is very necessary to have varieties which will lend themselves to the severe pruning and training necessary to produce the tree form, and in this shape we offer only the Hybrid Perpetual or hardy class, with flowers of white, pink, scarlet and crimson.



Moss Roses

Admired for the beautiful moss covering of the buds. The Moss Rose is strong and vigorous, perfectly hardy, and very desirable for outdoor culture. Most varie-

ties bloom but once in the season, and usually not the first year, but the flowers and buds are very large and handsome, remain in bloom a long time, and are highly prized wherever beautiful Roses are known. They like rich ground and are much improved in beauty and fragrance by liberal manuring and good cultivation.

Blanche Moreau. Pure white; large, full, perfectly formed.

Capt. John Ingraham. Dark velvety purple, large size; double.

Countess of Murinais. Large, pure white; beautifully mossed.

Crested Moss. Deep pink buds surrounded with a mossy fringe and crest; exquisitely fragrant. One of the best.

Glory of Mosses. Flowers large; color pale rose. A strong grower, with fine healthy foliage.

Henry Martin. Rich, glossy pink, tinged with crimson; large, globular flowers; full, sweet and finely mossed.

John Cranston. Deep crimson; very double.

La Neige. A pure white Moss, with medium sized flowers full in shape and double.

Luxembourg. Bright crimson; large and mossy.

Princess Adelaide. Fine reddish blush; large and vigorous.

Perpetual White. Pure white; blooms in clusters, Paul Fontaine. Deep crimson; a constant bloomer. Salet. Light rose; large and full; a good autumn bloomer.

Venus. One of the most vigorous of the Mosses, with splendid foliage. The plant is branching in habit, forming a fine, compact bush. Flowers are bright, glowing crimson, fully double.

MISCELLANEOUS ROSES

Harrison Yellow. Semi-double; bright yellow; very showy and fine; blooms very early; one of the best of its color.

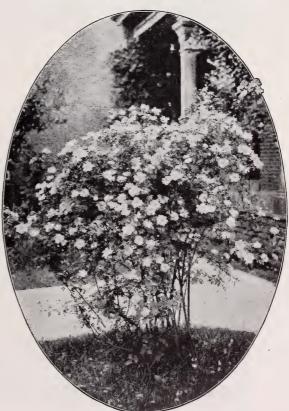
Mad. Plantier. A perfectly hardy, pure white, double Rose. The plant grows in fine bush form, and blooms profusely in June. A most desirable cemetery Rose, as it grows luxuriantly without attention.

Persian Yellow. Deep, golden yellow; semi-double, very fine

Rosa lucida. Handsome foliage and bright pink flowers; fruits red.

R. Carolina. SWAMP ROSE. Hardy in wet or dry soil. Shrubby, with pretty pink flowers in July. Red fruits.

ROSA RUGOSA. This Japanese Rose forms a sturdy bush, 4 to 5 feet high, covered with large, dark green, glossy foliage, crowned with terminal clusters of 10 to 20 flowers, each 3 inches in diameter. Perfectly hardy. A valuable plant for the hardy border or shrubberies, its large, handsome, scarlet fruits being very ornamental all through the autumn and early winter months. It also makes a splendid hedge, its foliage being impervious to the attacks of insects of all kinds.



PERSIAN YELLOW ROSE



ROSA RUGOSA

Miscellaneous Roses, continued

var. rubra. Beautiful rosy crimson, single flowers. var. alba. Pure white.

var. Agnes Emily Carman. Flowers large, semi-double; fine in the bud state; rich, deep crimson. A remarkably free bloomer, and continues in bloom a long time.

var. Mad. Georges Bruant. Flowers in clusters; semi-double; buds long and pointed, similar to Niphetos in shape; pure white. Remarkably free-flowering, and hardy where the thermometer does

not go below zero. It forms a handsome bush for the lawn and yard, as it retains the heavy thorny canes and glossy, leathery leaves of the Rugosa.

var. Blanc Double de Coubert. Purest paperwhite, blooming in clusters of from five to ten flowers; double, very sweet. A strong, rampant grower, having the true Rugosa foliage. Flowers nearly 5 inches in diameter, produced freely and lasting well. Perfectly hardy.

var. Belle Poitevine. Very free and branching; every tip is laden with immense bouquets of large

pink Roses. Buds very long; perfume exquisite and unique.

var. Charles Frederick Worth. A hybrid Rugosa Rose of extremely strong growth, with attractive deep green foliage, more dense than other varieties. Flowers are deep crimson with carmine shadings.

var. Consul Ferdinand Meyer. Large, cupshaped, double silvery pink flowers, borne well above handsome rugose foliage. Exquisitely perfumed and perfectly hardy.

var. New Century. A splendid Rose of the Rugosa type, with clear, flesh-pink flowers 3 to 4 inches across, perfectly full and double. Its perfume reminds one of the sweetbriers, and is one of the most constant bloomers of its class.

R. rubiginosa. English Sweetbrier. An old garden favorite that is highly prized on account of the delightful fragrance of its leaves and young branches. It is perfectly hardy, and, once planted, requires very little care. It is particularly fine for hedges, and makes splendid single plants on the lawn.



MAD. PLANTIER (see page 85)



HEDGE OF CALIFORNIA PRIVET, CATALPA BUNGEI IN BACKGROUND

HEDGES AND SCREENS

There is a strong movement on the part of householders everywhere to separate their grounds from their neighbors by the use of hedges instead of fences,—indeed, as a matter of cost, a good hedge can be made as cheaply as a board fence and, with a little care, it becomes every year more and more a thing of beauty. Such hedges continue as a principal attraction in our best kept places.

For hedge fences that will turn stock, the Honey Locust (page 43) is perfectly hardy, of strong growth, and will flourish in almost any soil. It also readily submits to the necessary pruning, so that it can easily be made to assume any desired shape, and, being covered with long, hard, and very sharp thorns, makes a close, firm and almost impenetrable barrier, that will turn any ordinary farm stock. The Osage Orange has for many years been considered one of the best plants for hedges.

Among plants adapted to ornamental hedges, the American Arborvitæ (page 59) and Norway Spruce (page 56) take first place among evergreens. They succeed nearly everywhere, are readily transplanted and can be kept of any desired size or shape. For greater variety, the Pyramidal, Hovey's Golden and Siberian Arborvitæs (page 59); or Red Cedar (page 55) and Hemlock Spruce (page 59) may be used for dwarf evergreen hedges; the Tom Thumb Arborvitæ (page 59), Mahonia aquifolia (page 60), and, where hardy, the Tree and Dwarf Box (page 60) are valuable.

Among the finest shrubs for deciduous hedges are the California and Common Privet (page 69) Japan Quince (page 64), Spiræa Van Houttei and Bumaldi (page 72), Tartarian Honeysuckle (page 69), the Common, Purple-leaved and Thunberg's Barberriès (page 62).

A very beautiful hedge can be made by intermingling flowering shrubs, and clipping or allowing them to grow naturally.

Shelter-belts of trees, especially if they are evergreens, make the dwelling-house warmer, give comfort to its inmates, diminishing to no inconsiderable extent the consumption of fuel. They also make the outbuildings warmer for stock at night, and the yard by day, thereby saving a large amount of food.

We can supply in quantity, plants of all the sorts mentioned above, and almost any others that may be desired.

HARDY VINES

Before trees and shrubs can become fairly established on a new place, vines, planted plentifully, may transform it. They will grow, too, where other ornamentals will find no room, displaying their beauty on steep wall, tree trunks and trellises. We offer

a select list of the best and most useful.

AKEBIA

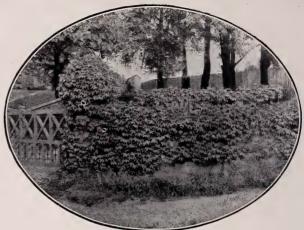
A. quinata. A beautiful, hardy Japanese vine, with unique foliage and chocolate-purple flowers of delightful fragrance in large clusters. The foliage is never attacked by insects.

A MPELOPSIS

A. quinquefolia. VIRGINIA CREEPER. The well-known native, with five-parted leaves that change to rich scarlet in fall. Berries black-blue. Entirely hardy anywhere; quick-growing; usually requires some support on walls, although it climbs by means of tendrils and clings to brick and stone surfaces.

var. Engelmanni. Of denser growth, shorterjointed and richer in effect. Grows 6 to 10 feet in a season.

A. Veitchi. BOSTON IVY. A beautiful, hardy Japanese species. One of the finest climbers for covering walls, as it clings firmly to the smoothest



BOSTON IVY

surface, covering it evenly with overlapping leaves which form a perfect mass of foliage. The color is a fresh deep green in summer, changing to bright shades of crimson and yellow in autumn. When once established it is quite hardy. Give some protection the first year.

ARISTOLOCHIA

A. Sipho. Dutchman's Pipe. A magnificent hardy vine of rapid growth, with very large, heart-shaped leaves and brownish flowers, resembling in shape a miniature pipe. Splendid for archways or verandas, as it is a very rapid grower and forms a dense shade.

BIGNONIA. See Tecoma

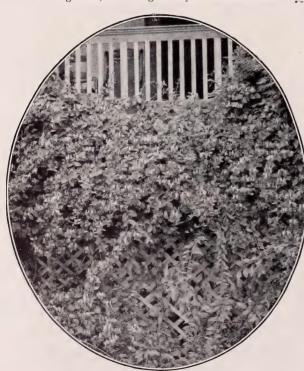
CELASTRUS

C. scandens. BITTERSWEET. A native climber, with handsome, glossy foliage, and large cousters of beautiful, orange-crimson fruits, retained all winter. Very bright in effect, and its graceful sprays of berries are charming for winter house decoration.

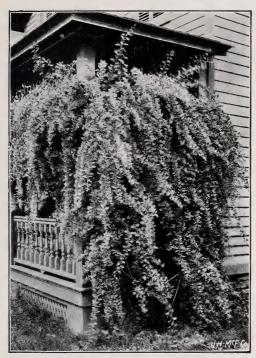
CLEMATIS. See special list on page 90

DIOSCOREA

D. Batatas. The odd and quaint Cinnamon Vine, most conspicuous in fall when small tubers cluster in the axils of its dark, glossy, arrow-shaped leaves. The white flowers are small but fill the air with a delightful cinnamon odor.



GOLDEN-LEAVED HONEYSUCKLE (see page 89)



MATRIMONY VINE

EUONYMUS

E. radicans. One of the finest evergreen vines, with small, rich green foliage and pink fruits in cells which separate and expose the scarlet arils covering the seeds, making a most attractive feature. For covering rocky banks, rough walls, tree-trunks etc., it is a treasure. Used also for vases, baskets and borders of beds.

var. variegata. In all respects like the type, except that the foliage is edged with creamy white.

HEDERA

H. Helix. The well-known English Ivy, still the most beautiful covering that can be given to any rough wall or surface. Leaves of rich green.

var. conglomerata. A variety with smaller foliage, either 3-lobed or entire. It is very slow-growing and the leaves crowd the branches the entire length.

LONICERA

- L. brachypoda aurea reticulata. JAPAN GOLDEN-LEAVED HONEYSUCKLE. Of vigorous growth, forming radiant festoons and masses with its clear golden leaves; flowers creamy white.
- L. Japonica. Chinese Twining Honeysuckle.
 Almost evergreen; flowers nearly white.
 - var. Halliana. HALL'S JAPAN HONEYSUCKLE Pure white and creamy yellow, very fragrant flowers; in bloom the whole season. Almost evergreen. Besides its ordinary uses as a climber, it is valuable for covering banks, bare places, etc., where grass will not grow.

- Lonicera Periclymenum, var. Belgica. Dutch Hon-EYSUCKLE. Displays its pretty red and yellow flower-sprays constantly.
- L. sempervirens. SCARLET TRUMPET HONEYSUCKLE... Flowers scarlet and trumpet-formed.
 - var. fuchsioides. Coral-red trumpets in clusters: var. flava. Yellow Trumpet Honeysuckle... Large, clustered yellow flowers.
- L. semperflorens. Flowers yellowish white; fragrant...

LYCIUM

L. Chinense. MATRIMONY VINE. Sometimes trained as a shrub. Purple-flowered and showy-fruited. Extra vigorous in growth.

PERIPLOCA

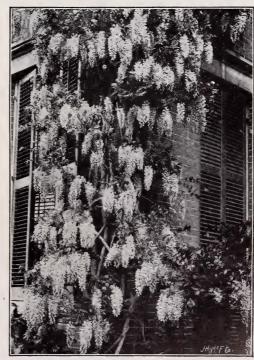
P. Græca. Silk Vine. A rapid-growing, beautiful climber, with glossy green, lanceolate foliage.

TECOMA

T. radicans. TRUMPET CREEPER. A robust, woody vine, climbing high and twining tightly with numerous roots along its stems. Its orange-scarlet flowers cluster at the tips of the branches. Leaves light green.

WISTARIA

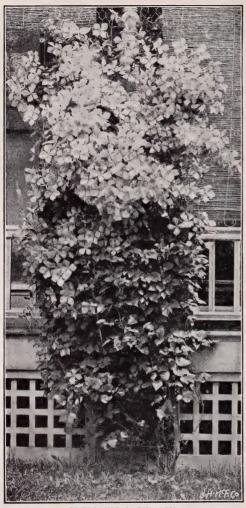
- W. magnifica. Flowers in dense, drooping racemes of a pale layender color.
- **W. multijuga.** A Japanese species with dark blue flowers, in racemes of astonishing length.
- W. Sinensis, var. alba. Differs from the Chinese only in having pure white flowers.



CHINESE WISTARIA

CLEMATIS

Of all the vines used either for shade or decoration, none can compare with the Clematis in its many and varied forms. While the large-flowered kinds are not so good for shade until they attain considerable age, their wealth of bloom makes them the grandest embellishments to the porch known. Of the smallflowered varieties, Paniculata undoubtedly holds the lead either as a shade producer or for its abundance of bloom. It is a rampant grower in good soil, and the lateness of its bloom, coupled with the exquisite perfume of its flowers, makes it one of the most desirable of all vines.



CLEMATIS JACKMANI

Large-Flowered Clematis

In this superb family of hardy climbers, many of the varieties have flowers 5 to 7 inches in diameter. They are grand for pillars and trellises, pegged down for bedding and for running over rockwork, old trees and stumps. They delight in rich soil, and a sunny situation, and are perfectly hardy.

Duchess of Edinburgh. Fine white, double flowers. Henryi. Creamy white; large and of fine shape; a free grower and bloomer.

Jackmani. Flowers, when fully expanded, 4 to 6 inches in diameter, intense violet-purple, with a rich velvety appearance, distinctly veined. It blooms continually from July until cut off by

Madame Edouard Andre. Has been called the Crimson Jackmani. The plant is a strong, vigorous grower, and very free in bloom. Color a distinct crimson-red. Entirely distinct from all other varieties.

Ramona. A strong, rampant grower and a true, perpetual bloomer, flowers appearing on the last year's growth and on the new shoots, giving an abundance of bloom all through the season. Color deep rich lavender.

Small-Flowering Clematis

Coccinea. A very handsome, hardy climber, bearing thick, bell-shaped flowers of bright coral-red. Blooms with wonderful profusion from June until

Davidiana. Grows only about 4 feet high, but needs support. The leaves are larger than most varieties and the small, bell-shaped flowers, borne in clusters, are a dainty shade of blue.

Paniculata. Sweet-scented Japan Clematis. Of very rapid growth, quickly covering trellises and arbors with handsome, clean, glossy foliage. The flowers are of medium size, fragrant, pure white, borne in immense sheets in September, when very few other vines are in bloom.



CLEMATIS PANICULATA



HARDY PERENNIAL PLANTS

As these yearly come into more plentiful use, we have enlarged our list to meet popular demands. The hardy garden is the only really artistic one. Already our parks and gardens are much more beautiful for the revival of interest in hardy perennials.

ACHILLEA. Yarrow, or Milfoil

- A. Millefolium roseum. Fern-like foliage, low-growing, 15 to 18 inches high. Blooms in dense heads of bright rose-colored flowers in August.
- A. Ptarmica, var. The Pearl. Has very showy heads of pure white, double flowers, on strong, erect stems, 2 feet high, blooming constantly.

AGROSTEMMA. See Lychnis

ALYSSUM

- A. saxatile compactum. Golden Tuft. A fine border plant, not over 12 inches high, which bears numerous clusters of bright yellow flowers in May, similar in shape to the well-known Sweet Alyssum.
- A. coronaria. Rose Campion. A most beautiful plant with silvery leaves and bright crimson flowers in June and July, borne on stems 1½ to 2 feet long.
 - var. alba. Similar to the type, but with pure white flowers. Distinctly graceful and beautiful.

ANEMONE. Windflower

One of the most showy of all our autumn-blooming herbaceous plants. Blooms freely from August till cut down by frost. In light, somewhat moist, rich soil, the plants make a beautiful, hardy border or bed. A slight covering of leaves or straw is sufficient protection in most severe winters.

- A. Japonica, var. alba. Pure white, with yellow centers; large, single, long-stemmed flowers. Plant grows 2 to 3 feet high and blooms from September until frost. Fine for cutting.
 - var. Prince Henry. Large, semi-double, deep red flowers on stems $1\frac{1}{2}$ to $2\frac{1}{2}$ feet high. August to October.
 - var. Queen Charlotte. Large, semi-double flowers of silvery pink.
 - var. Rose d'Automne. Rosy lilac, large, semidouble flowers on stems 2 to 3 feet high.
 - var. rosea superba. Pale rose, 2 to 3 feet high, blooms from August to October.



ANEMONE JAPONICA

Anemone, continued

A. Japonica, var. rubra. Deep rose, with yellow center; habit same as the white.

var. Turban. Deep wine-red, double and free-flowering. 2 to 3 feet high. August to October. var. Whirlwind. Semi-double, pure white.

ANTHEMIS. Chamomile

"A. finetoria. HARDY GOLDEN MARGUERITE. Flowers golden yellow, from 1 to 2 inches across; abundant from June until September. Very valuable for cutting. 2 feet high.

var. pallida. A strong, erect, sturdy sort, with creamy white flowers. Splendid for the border or for clumps.

AQUILEGIA. Columbine

These are plants of elegant habit, distinct in foliage and flowers. The latter form a showy crown well above the clear-cut leaves. All the species like partially shaded, well-drained soil. One of the best plants for rockwork, or growing under trees.

A. cærulea. A fine Rocky Mountain species, with large flowers, often 4 inches across on stems 1 to 1½ feet tall in June. The sepals are deep blue, petals pure white, spurs recurved. Splendid for cutting, the flowers retaining their freshness a long time.

A. chrysantha. Yellow, of good size, with yellow spurs. Grows 2 to 3 feet high, and makes a bush 2 to 3 feet across. Blooms in June.

ARUNDO

A. Donax variegata. A hardy, broad-leaved, variegated bamboo, with foliage of striped creamy white and green. Grows 6 to 8 feet high; is very handsome and imposing.

ASCLEPIAS

A. tuberosa. MILKWEED; SILKWEED, etc. A handsome field plant, 2 or 3 feet high, with many showy cymes of intense orange flowers in midsummer. The seed-pods are interesting.

ASTER. Michaelmas Daisies

The hardy, perennial Asters have become very popular, as they grow without the slightest care and brighten up the garden when other flowers have gone.

A. lævis. Fine blue, with immense clusters on stems 2 to 3 feet high in September.

A. longifolius formosus. Handsome white flowers; 3 to 4 feet; October.

var. Mad. Soymier. Bright pink flowers. Particularly fine.

A. Novæ-Angliæ. One of the finest native hardy Asters, 3 to $3\frac{1}{2}$ feet high, with bluish purple flowers 2 inches across. Blooms from September to frost, and is one of the most ornamental plants we have for late blooming.

var. Mrs. J. F. Rayner. Handsome, vivid crimson flowers.



COLUMBINE

Asters, continued

- A. Snowflake. Clear white flowers in September.
- A., Thos. S. Ware. Delicate lilac mauve, strong full heads, growing 3½ feet high and blooming in September and October.
- A. Trinervius. Deep violet-mauve, 3½ feet high, September to November.
- **A. Turbinellus.** Pale, delicate mauve, fine for cutflowers; grows 2 to 4 feet high, and blooms in September and October.
- A., White Queen. Beautiful creamy white, twisted petals; fine for cutting; 1½ to 2 feet; September and October.

ASTILBE. Spiræa

A. Japonica. A handsome plant, 15 to 18 inches high, with small, pure white flowers in large, feathery panicles. It is extensively used for forcing in winter. Blooms in the garden in June.

var. compacta. Compared with Japonica, the individual flowers are much more numerous, the flower-spikes larger and more compact. Habit same as parent.

BAPTISIA. False Indigo

B. australis. Blue False Indigo. Two feet high, with deep blue flowers in pretty racemes during June and July. Give a sunny, well-drained position.

BOCCONIA

B. cordata. Plume Poppy. Stately, growing from 6 to 8 feet high, with large foliage and long spikes of white flowers in August.

BOLTONIA. False Chamomile

B. asteroides. Tall, 4 feet or more in height, with white, aster-like flowers in broad heads during August. A handsome plant for borders and masses var. latisquama. Same habit, but with masses of pale lilac flowers.

CAMPANULA

C. Carpatica. Carpathian Harebell. A very pretty species, growing in compact tufts, not exceeding 8 inches in height; flowers clear blue, I inch in diameter; from June to August.

var. alba. A white-flowering form of the above. Blooms continually throughout the summer.

- C. Medium. The well-known CANTERBURY BELLS.
 Blooms in July; height 2 to 3 feet. Handsome spikes of bell-shaped flowers, making a gorgeous show in the garden. In three colors, blue, white and rose.
- C. persicifolia. Peach Bell. Grows 1½ to 2 feet high and produces a great number of blue, salver-shaped flowers during June and July.

yar. alba. Same as the type, but with white flowers,

C. pyramidalis. CHIMNEY BELLFLOWER. Handsome, vigorous plants, 4 to 6 feet high, blooming July to September. In two colors, blue and white.

CATANANCHE

C. cærulea, fl. pl. alba bicolor. A pretty summerblooming perennial, growing to 2 feet in height, with peduncled flowers of delicate blue, margined with white. Useful for cutting and sometimes used as everlastings.

CENTAUREA. Knapweed

C. montana, var. alba. MOUNTAIN BLUET. A handsome border plant, growing a foot high and displaying showy white blossoms. Young foliage is silvery white.



SHASTA DAISY

CHRYSANTHEMUM

C. Leucanthemum hybridum. The new Shasta Daisy is a perfectly hardy perennial of the easiest cultivation, possessing so many valuable features as to entitle it to a place in every garden. The flowers are extremely large and graceful, averaging about 6 inches in circumference, with three or more rows of petals of the purest glistening whiteness, on single strong, stiff, wiry stems, nearly 2 feet long. Blooms profusely all summer and autumn. The blooms, when cut, remain perfectly fresh for two weeks or more.

var. Alaska. Has flowers $4\frac{1}{2}$ to 5 inches in diameter, crowded with broad, white petals surrounding a very small disc of yellow. Stems average $2\frac{1}{2}$ feet long.



LARKSPUR

Chrysanthemum, continued

C. Leucanthemum, var. California. Like the former in habit, but the flowers are clear pale lemonyellow. Plant is gigantic in growth, the flowers being borne on stems feet 3 long.

var. Westralia. A charming variety of Shasta, with branching habit. Plant grows 3 or 4 feet in height, with cream-colored flowers having somewhat twisted narrow petals and semi-double.

CLEMATIS Davidiana. See Hardy Vines

CONVALLARIA. Lily-of-the-Valley

C. majalis. A lovely, hardy little perennial, widely planted everywhere for its delicate sprays of drooping white bells and their delightful fragrance. The leaves are a rich, dark green; the plant vigorous, soon forming fine clumps which bloom early in spring. Largely forced in winter.

COREOPSIS

- C. grandiflora. Bright golden flowers on stems 2 to 3 feet long in May to July. Flowers are much larger and handsomer than the other variety.
- C. lanceolata. A beautiful hardy border plant that grows 15 to 18 inches high and produces its bright golden yellow flowers in great profusion the entire season. Beautiful masses and a favorite for cutting.

DELPHINIUM. Larkspur.

- D. elatum hybridum. Varies from 2 to 4 feet high and bears beautiful spikes of bright blue flowers, the petals of which darken to violet on the edges. Blooms from June to August and is very hardy, increasing bountifully from year to year.
- D. formosum. A strong, robust perennial, 2 to 3 feet high; flowers in abundance; deep azure with white center. June and July. If the flower-stalks are cut down immediately after the first blooming, another crop of flowers can be obtained in autumn.

var. cœlestinum. Same as the above except in color, which is pale, delicate blue.

DESMODIUM

D. penduliflorum (Les pedeza Sieboldi). A beautiful Japanese perennial, with clover-like foliage, and long, pendulous racemes of rosy purple flowers. The stems are 4 feet long, and in early autumn are literally loaded with the flowers. Very hardy and showy, and a fine plant for growing in front of shrubbery.

DIANTHUS. Pink

Valuable border plants, hardy everywhere; blooming freely in May and June. All have a rich clove fragrance. We offer 12 distinct Hardy Garden Pinks.

- D. barbatus. SWEET WILLIAM. The old-time favorite, growing 1½ to 2 feet high, and bearing during May and June a profusion of round-topped clusters of flowers of all shades of red and pink to white.
- D. hybrida. All the best hybrids.

Hardy Garden Pinks

Abbottsford. Bright carmine, laced white.
Alice Lee. One of the finest, large whites.
Essex Witch. Delicate pink, finely fringed.
Gertrude. White, with maroon markings.
Her Majesty. Very large, purest white.

Laura Wilmer. White, with purplish maroon center.
Mary Gray. Reddish purple, with narrow white lacing.

Old-Fashioned. Deep pink; very handsome. Souv. de Sale. Soft rosy pink; very double. White Reserve. Pure white, beautifully fringed.

DICENTRA. Bleeding Heart

D. spectabilis. A hardy perennial with heart-shaped, rose-colored flowers in drooping spikes. One of the best border plants; perfectly hardy and easily cultivated: 2 feet high. Flowers in April or May.

DICTAMNUS. Gas Plant

D. fraxinella. A very showy plant, forming a bush about 2½ feet in height, having fragrant foliage and curiously shaped flowers.

var. alba. White flowers in long spikes.

var. rubra. Red flowers.

DIGITALIS. Foxglove

D. purpurea gloxinæflora. A variety of the cld-fashioned Foxglove, but of more robust habit, larger flowers and longer racemes. The flowers, which are spotted, come in shades of rose and white, and are borne in spikes 2 to 3 feet high, blooming from June to September.

ERIANTHUS

E. Ravennæ. A stately ornamental grass, with purplish plumes, useful for subtropical gardening. Foliage is bronzy green. Grows about 2 feet tall, and is in flower during July and August.

EUPATORIUM

- E. purpureum. JOE PYE WEED. Familiar and somewhat coarse in appearance, but very effective when rightly used. Tall, with whorled leaves and large, loose heads of rosy purple flowers. In shrubbery borders and low grounds it is showy and fine; 7 feet.
- **E. cœlestinum.** A late-blooming variety, I to 2 feet tall, with compact cymes of heliotrope-colored flowers. Useful for low borders.

EULALIA

- E. gracillima univittata. Narrow green leaves with a silvery white midrib. This plant is of most graceful habit. Very useful for decorative purposes and the center of vases; also an attractive lawn plant. Perfectly hardy, standing our most severe winters.
- E. Japonica variegata. Long, narrow leaves, striped with green and white, sending up stalks 4 to 6 feet high, terminating with a cluster of flower-spikes.

var. Zebrina. This is one of the most striking and distinct plants. Unlike most plants with variegated foliage, the striping or marking is across the leaves instead of longitudinally, the leaves being crossed every two or three inches by a band of yellow half an inch wide.

FUNKIA. Day Lily

The Funkias all make handsome, showy plants with beautiful, broad ovate leaves, and large, lily-like, fragrant flowers, in large clusters. They like to grow in moist, shaded places and form clumps 12 to 20 inches high. In bloom from July to September.

- F. lancifolia, var. variegata. Slender leaves, margined with white and pale lilac flowers.
 - var. undulata. Graceful, with narrow leaves having a fluted white edge.
- F. speciosa Japonica alba. Has pure white flowers, 4 to 4½ inches long, 10 to 15 growing on a 2-foot stem. Foliage is pale green.
- **F.** subcordata (*F.* alba). A fine old species, with large, pure white flowers and wide circles of broad leaves.

GAILLARDIA. Blanket Flower

G. grandiflora. A showy plant with dense tufts of drooping leaves and flower-stems 2 feet high, producing daisy-like blossoms 2 to 3 inches across, of gorgeous colors. The center is dark red-brown, while the petals are orange, crimson and red, shaded into rings of color, thus ringing the petals into three somewhat distinct sections. Delights in a rather poor light soil, and blooms in the most wonderful profusion from June to November.

GYPSOPHILA

G. paniculata. Baby's Breath. Two to 3 feet in height and most graceful in effect, with mist-like white flowers that are popular for cutting, as they give an air of grace and harmony to any arrangement. Blooms July to September.



FOXGLOVE



GAILLARDIA GRANDIFLORA (see page 95)

HELENIUM

H. autumnale. A showy, tall plant, 5 to 6 feet high, with deep golden yellow flowers in massive heads. Plant is 2 to 3 feet across and blooms from August to October.

HELIANTHUS. Sunflower.

- H. Maximiliani. Small and graceful flowers of deep yellow on stems 2 to 4 feet long, blooming from August to October.
- H. mollis grandiflora. Lemon-yellow; one of the best varieties. Grows 3 to 5 feet high; blooms July to September.
- **H.** multiflorus plenus. Handsome, bushy plants, 4 feet high, with very double flowers, of golden yellow. One of the choicest perennials, blooming July to September.
 - var. Soleil d'Or. A new quilled sort, with flowers as double and fine as those of a cactus dahlia.
- H. rigidus. Dwarf, only 1 to 3 feet high, covered with large yellow flowers from August to October.

HELIOPSIS

H. Pitcheriana. Pretty, daisy-like yellow flowers, from July to October, borne on branching plants
to 3 feet high. Clear yellow, with red-maroon centers. They have good stems and are excellent for cutting.

HEMEROCALLIS

H. Dumortieri. Very dwarf and compact, 1½ to 2 feet high, producing an endless number of large, lily-like blossoms of a bright orange-color in June. The smallest plant will bloom freely the first year.

- H. flava. Lemon Lilv. A pretty plant with long narrow leaves and flower-stalks 2 to 3 feet high. These are crowned in June by beautiful lemon-colored flowers, 3 to 4 inches in diameter, and delightfully fragrant.
- H. Kwanso fl. pl. Large, double, copper-colored flowers; in bloom all summer. An excellent plant for the hardy border,—one that grows 1½ to 2 feet high, and blooms well in almost any situation.
- H. Thunbergi. Beautiful lemon-yellow, fragrant flowers from July to September. Grows 1½ to feet high, and bears eight to ten flowers on each stalk.

HIBISCUS. Mallow

- **H.** militaris. Strong-growing, 4 to 6 feet high, with white, blush, or pale rose flowers, with purple eye; blooming in August and September.
- H. Moscheutos. SWAMP ROSE MALLOW. Large purplish pink or nearly white flowers. Grows 4 to 5 feet high, and blooms in August and September.
 One of the most gorgeous of perennials and attracts great attention wherever grown.

var. Crimson Eye. Immense flowers of purest white, with large centers of velvety crimson. Blooms very profusely, the plants being covered all summer with a wealth of most beautiful, attractive flowers.

HYACINTHUS

H. candicans. A magnificent yucca-like plant, producing, in July and August, a flower-stem 3 to 4 feet high, covered with from 20 to 30 pure white, pendent, bell-shaped flowers.

HOLLYHOCK

A. rosea. Almost indispensable as a background for beds and borders, as their straight, towering spikes 4 to 6 feet high, are a mass of bright flowers the entire summer. They require a deep, rich soil, and will not succeed if planted where water is liable to stand.

We offer a fine collection of double sorts in four distinct colors: Crimson, Yellow, Pink and White.

Alleghany. The Alleghany is a great improvement in the way of Hollyhocks. The flowers come single semi-double and double. They are seldom less than 5 inches across, and are beautifully fringed, of fine form and delicate texture. They are perpetual bloomers, two to four buds forming at the base of every leaf, where the old-style Hollyhocks have but one or two. These buds open in succession, prolonging the flowering season until autumn

Single Mixed. We have a splendid assortment of these majestic old-fashioned flowers which every one knows and loves. They grow 4 to 6 feet tall—higher at times—and bloom from July to August.

HYPERICUM. St. John's-wort

H. Moserianum. Gold Flower. A grand perennial of shrubby habit, 2 feet high, with large bright golden yellow flowers 2 inches in diameter. A continuous bloomer and perfectly hardy. Also listed under shrubs on page 68.

IBERIS. Candytuft.

I. sempervirens. Of spreading habit; flowers pure white, covering the plant with bloom. One of the finest border plants; beautiful with flowers very early in spring. Good for cutting. Evergreen.

INCARVILLEA

I. Delavayi. A low-growing border plant, with handsome pinnate leaves I foot long and drooping to the ground. The rosy purple, trumpet-shaped flowers are borne above the leaves on stems I to 2 feet long all summer.

IRIS. Fleur-de-Lis

- I. alba virens. Pure white flowers produced very freely on low-growing plants in late May and June. Good to plant in front of tall varieties.
- I. Germanica. German Iris. This group blooms in May with wonderful combinations of coloring. Easily distinguished from other Iris by their broad, sword-like leaves. We offer eight named varieties. Likes a drier soil than the Japan species.

The following named varieties are among the best and give a good assortment of color.

I. Kæmpferi. Japan Iris. The Japanese Iris should be planted in a somewhat cool, moist situation, and in rich soil. Its flowers, in late June and July, are quite distinct from those of all the varieties, and will compare favorably with some of the exotic orchids. We offer a fine list of named varieties in our Catalogue No. 2.

Cubero. Rich orange-yellow, the falls heavily penciled with purplish maroon.

Florentine. Pure white, with the tips of the upper petals tinged with lilac.

Fulda. Sating white, the lower petals lilac, feathered with yellow.

Honorabilis. Upper petals golden yellow; falls crimson.

Mad. Chereau. White, with blue edge and blue pencilings. Delicate and distinct.

Parisiensis. Rich, royal purple, with delicate pencilings of white at base of petals. Largest and showiest of all.

- I. cærulea. Rather dwarf in growth, with short stems. Flowers azure-blue in the middle of April.
- I. pumila, var. hybrida. A dwarf variety with narrow leaves. The flowers vary from white and lilac to deep purple. One of the earliest to bloom.
- violacea. Violet flowers veined with a darker shade. Grows about one foot high and blooms in May.



IRIS KÆMPFERI



ORIENTAL POPPY

LATHYRUS. Flowering Pea

L. latifolius. Very ornamental climbing herbaceous plants, well adapted to grow on garden trellises, to cover walls, stumps, etc. Seldom out of bloom from June until hard frost in fall. A useful plant for cut-flowers. We offer three distinct colors; Red, Pink and White.

LINUM. Flax

L. perenne. Perennial Flax. An erect-growing plant, I to 2 feet tall, with fine blue flowers in midsummer. Graceful and elegant.

var. alba. Same as the former, but with delicate white flowers. The two sorts form pretty contrasts when grouped.

LOBELIA

- L. cardinalis. CARDINAL FLOWER. Erect perennial, 2 to 4 feet high, with intense cardinal-red flowers from May to September borne in a loose raceme. One of the most showy and brilliant flowers of the garden.
- **L.** fulgens, var. Queen Victoria. Brilliant scarlet flowers and purple foliage. Blooms May to September.

LUPINUS

L. polyphyllus. One of the most beautiful perennials, growing 3 to 6 feet tall, and bearing immense spikes of dark blue flowers from June to September. Very stately and picturesque and grows in any soil.

LYCHNIS. Lamp Flower

- L. Chalcedonica. One of the most showy border plants, 2 to 3 feet tall, throwing out large heads of brilliant vermilion-scarlet flowers in June.
- L. coronaria (Agrostemma coronaria). Rose Campion. A pretty plant, growing from 1½ to 2 feet high, with silvery foliage and showy bright crimson flowers. Will thrive in shaded places and blooms in June and July.

var. alba. Same as the type, but with white flowers.

L. viscaria splendens. Makes large clumps of almos evergreen foliage. Comes into bloom in early June and continues for six weeks or more. Its flowers are bright crimson; useful for cut-flowers. Without doubt the finest red-flowered hardy perennial. Grows ½ to 1½ feet high.

MONARDA. Mint

M. didyma. OSWEGO TEA. One of the showiest and most brilliant of our perennials, with large heads of fragrant scarlet flowers. Will grow 1½ to 2½ feet high, and flourish in any soil. Is a beautiful adornment to the flower-garden.

MYOSOTIS. Forget-me-not

The Forget-me-nots are familiar flowers of many gardens,—hardy, easy to grow, with bloom-sprays of exquisite blue. They are lovely little plants for shaded borders

- M. dissitiflora. A low-growing perennial, 6 to 8 inches high, with small, pale blue flowers in a dense raceme. A biennial blooming in spring.
- M. palustris. Beautiful flowers of light blue with yellow eye, in a loose raceme. Grows 6 to 18 inches high and blooms in May and June. The true Forget-me-not.

ŒNOTHERA

The Œnotheras, or Evening Primroses, are most interesting plants, opening their flowers as the sun sets.

- **Œ. Frazeri.** Erect perennial, 2 or 3 feet high, with large, showy yellow flowers from June to October.
- **CE.** Missouriensis. A trailing variety with bright yellow flowers 4 to 6 inches across. Splendid for rockeries.
- **Œ.** Youngii. Fine erect sort, 1½ feet high, with handsome yellow flowers from June to September.

PEONIES. See page 102 and 103

PAPAVER. Poppy

- P. bracteatum. A charming species, producing numerous stout, leafy stems, 2½ feet high, with immense, deep blood-crimson flowers, having a black blotch at the base of each petal. In bloom from May to August.
- P. nudicaule. ICELAND POPPY. A beautiful class of hardy Poppies, forming tufts of fern-like foliage. We offer in separate colors of White, Yellow and Orange.
- P. orientale. The brilliant ORIENTAL POPPY, with large and flaming flowers of orange-scarlet.

PENTSTEMON. Beard Tongue

The Pentstemons bloom persistently through the summer and are found very useful for cut-flowers, or for color masses in the garden. Easily grown in any garden soil.

- P. barbatus, var. Torreyi. A well-known brilliant-flowered form; scarlet; almost beardless.
- P. lævigatus, var. digitalis. A tall border plant, with showy white inflated blossoms on slender spikes.

PHALARIS. Ribbon Grass

P. arundinacea variegata. Green leaves, striped lengthwise with creamy white. Forms handsome clumps and contrasts well in beds or lines with other grasses.

PHLOX. See page 104

PHYSOSTEGIA. Dragon-Head

P. Virginiana. Forms tall, handsome clumps, 3 to 4 feet high, with many spikes of odd-shaped, gaping, rosy purple flowers through July and August. Variable in color. var. speciosa alba. A taller form, with acutely

var. speciosa alba. A taller form, with acutely serrate leaves and dense spikes of erect, imbricated white flowers.

PINKS. See Dianthus

POTENTILLA (Cinquefoil). See Shrubs

PLATYCODON.

Chinese Bell-Flower

P. grandiflorum. A valuable perennial, forming a dense branching bush of upright habit, r to 2 feet high, with neat foliage. From the middle of July until late September it bears a constant succession of handsome, large, bell-shaped, deep blue flowers. Succeeds well in any ordinary soil.

var. album. In all respects the same, except in color of flowers, which are white. var. Mariesi. A form with very blue foliage and blue or lavender flowers on stout stems about a foot high. Plant is very compact and a valuable addition to the border.

PLUMBAGO. Leadwort

P. Larpentæ. A useful edging plant, 6 to 12 inches high, bearing rich, deep blue flowers, and continuing in bloom till frost. An unusual color and always attractive.

POLEMONIUM

P. cæruleum, var. album. A handsome white flowered form of the fine old Jacob's Ladder, which takes its name from the regular arrangement of pinnate leaflets upon their stem. A splendid plant growing I to 3 feet high, with handsome foliage and large, lobed, bell-shaped flowers.

PRIMULA. Primrose

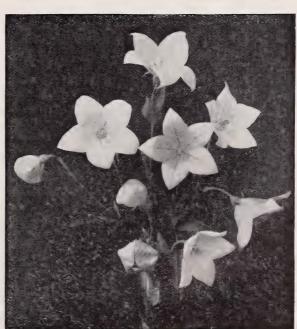
The hardy garden Primroses are most of them rather low-growing, but among the very finest of all perennial plants. They like a shaded situation and somewhat moist soil. Given these conditions, the clumps broaden into dark green masses of rootleaves, and the plant flowers finely every year. In some gardens they are used for spring bedding, like pansies.

P. veris (officinalis). TRUE ENGLISH PRIMROSE.

Bears handsome clusters of very fragrant, light
yellow blossoms in early spring. Plant grows only
6 to 12 inches high.

PYRETHRUM. Daisy Feverfew

The Pyrethrums are handsome composite flowers, with finely dissected foliage, growing 1 to 2 feet high and blooming all summer.



PLATYCODON GRANDIFLORA



RUDBECKIA

Pyrethrum, continued

- P. hybridum, var. roseum fl. pl. Double flowers of deep pink. One of the most effective perennials grown.
- P. uliginosum. Great Ox-Eye, or Giant Daisy. A perfectly hardy plant, growing 4 to 5 feet high. Upright in growth, with bright green foliage. White, with bloom from midsummer to autumn. The great snowy flowers have yellow centers, and are from 2 to 3 inches across.

RUDBECKIA. Cone-flower

- R. laciniata, fl. pl., "Golden Glow." A distinct, tall-growing, hardy perennial, from 6 to 7 feet high. Foliage deeply cut, handsome bright green; flowers very double, rich golden yellow, 2 to 3 inches in diameter, borne on long, smooth stems, forming for the tall plant a solid head of bloom. Excellent for cutting.
- R. sub-tomentosa. Produces brilliant lemon-yellow flowers in autumn. 5 feet.
- R. purpurea. Purple Cone Flower. Splendid plant 3 feet high, with showy composite flowers, the drooping petals of which are reddish purple and the center a large, cone-shaped disc of brown thickly set with gold in spiral lines. Blooms in late summer. Shows well when planted in front of Golden Glow.

SALVIA. Sage

S. azurea grandiflora. A handsome species of the well-known Sage, with a profusion of sky-blue flowers in August and September. Plant grows 2 to 3 feet high.

SCABIOSA

S. Caucasica. MOURNING BRIDE. A beautiful border plant, about 18 inches high, with long-stemmed, lilac-blue flowers, that are fine for cutting. The finest species in its genus. Blooms from June until October.

SEDUM. Stonecrop

These are unique and showy little spreading plants, I to I½ feet high, with thick, succulent foliage in various odd shapes and beautiful colors. The flowers, sometimes massed in broad clusters, are odd and interesting. Valuable for rockeries, borders and dry banks where nothing else will grow.

S. spectabile. Showy Sedum. A general favorite, used for a great variety of purposes. The rose-purple flowers are borne in broad, flat, showy heads. Very fine in autumn.

var. alba. White flower-heads.

SHASTA DAISY. See Chrysanthemum, page 93

SPIRÆA. Meadow Sweet

These excellent border plants thrive well in any soil, but grow best in rich loam.



PYRETHRUM ULIGINOSUM

Spiræa, continued

- S. Aruncus. Light green pinnate foliage and immense branched panicles of small creamy white flowers. Blooms early in spring. Grows 11/2 to 2 feet high and is most effective when planted in groups.
- S. palmata. One of the handsomest herbaceous plants, 2 to 3 feet high, and very hardy; has beautiful palmate foliage, and a succession of showy deep crimson flowers in spring. Very effective.

STATICE. Sea Lavender

S. latifolia. SEA PINK. A native of Russia and exceedingly hardy. The plant grows about a foot high, has broad, luxuriant foliage and slightly recurved spikes of lilac flowers in midsummer.

STOKESIA

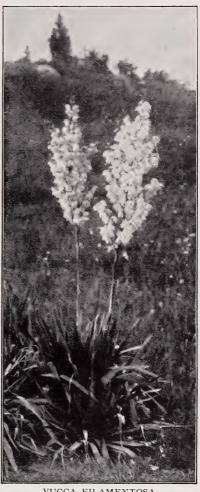
S. cyanea. A grand, large-flowered, hardy perennial, growing 18 to 24 inches high, and covered with centaurea-like flowers of a beautiful lavender-blue shade, and often 4 to 5 inches across. Of easiest possible culture, flourishing wherever given an open sunny exposure. As a single specimen plant, used in mixed borders or in large masses by itself, it is equally valuable, and, by its use, some very effective plantings may be worked out. Blooms from July to October continuously.

TRITOMA. Red-Hot Poker

These are tall and striking plants of much beauty when well placed and properly grown. The great spikes of flowers, sent up from the center of a broad circle of green leaves, have quite a rich and tropical appearance. Give some protection in cold climates. All varieties bloom from July to September. Also classed as Kniphofia.



TRITOMA PFITZERI



YUCCA FILAMENTOSA

- T. Pfitzeri. Spikes a foot or more in length, thickly set with orange-scarlet flowers. Stems grow 5 to 6 feet tall, making a conspicuous object in the garden.
- T. uvaria (Kniphofia aloides). Dazzling scarletvermilion spikes of flowers, from which it derives its name, "Red-hot Poker Plant." var. grandiflora. A variety with larger flowers on longer spikes

YUCCA. Adam's Needle

Y. filamentosa. An evergreen, with large, dense, circular tufts of long, stiff, sharp-pointed leaves, from the center of which rise the flower-spikes in June. They are 3 to 4 feet high, stout, branching near the top, and supporting hundreds of large, drooping, waxen-like flowers, that remain perfect for several weeks. The effect of a good clump in full bloom is striking and has much the effect of statuary. Most effective planted in front of shrubbery; its white flowers contrast with the dark background.

HERBACEOUS PEONIES

That Peonies are as fine and effective in their way as rhododendrons or roses, is now very generally recognized. They are hardier and more easily cultivated than either of their rivals, and are being used in the same way for bold displays of color. Their flowers are very lasting; some of them are finely finished and exquisitely colored. The Peony societies are doing good work in extending the culture of this grand old flower. Plant in deep, rich, well-prepared soil, covering the buds but an inch or two. Do not expect too much of them the first year. They are a little slow in establishing themselves.

Alpha sulphurea. Light sulphur-yellow, changing to white.

Andre Lauries. Rich velvety red, unusually rich; blooms late.

Anemonæflora. Rose, buff center.

Anemonæflora rubra. Dark crimson, with full center of small petals.

Augusta Miellez. White, flushed with pale flesh-color full and double.

Beaute Francaise. Bright flesh-pink, spotted with purplish white and carmine, shading violet toward center. Open bloom.

Berlioz. Bright currant-red; large, full and late.

Canariensis. White, shading to deep yellow in center.

Christophe Achord. Rose, creamy white center.

Delachei. Deep purple-crimson; strong grower; late. **Dorchester.** Extra size; light pink; very late.

Duchesse de Nemours. Sulphur-white, with greenish reflex. Flowers cup-shaped. Late.

Duchess of Orleans. Pale red and blush.

Duke of Wellington. Ivory-white, with creamy center; very large and double.

Eclatant. Broad, full flowers of purplish crimson. Edouard Andre. Glossy crimson-maroon, showing golden stamens.

Edulis superba. Bright violet-rose, silvery reflex. Fragrant and early.

Eugene Verdier. Blush, with white center; very large and beautiful.

Felix Crousse. Bright red; round and massive.

Festiva alba. Fine, large, pure white flowers; double.

Festiva maxima. Extra large; white, center petals tipped carmine.

Floral Treasure. Clear, delicate pink; very double and fragrant.

Francoise Ortegat. Purplish crimson; large, semi-double.

Golden Harvest. Creamy pink; very large and fragrant.

Hercules. Single; rose, tipped white.

Humei. Pure bright rose; one of the best late bloomers.

Indispensable. White, with pale rose center.

Isabella Karlitzhy. Delicate rose; very large and full.

Lady Leonora Bramwell. Silvery rose.

L'Esperance. Rosy white, suffused with violetpink; late.

Louis Van Houtte. Brilliant red.

Lutetiana.

Marie Lemoine. Fine, large, double; white.

Marie Stuart. Bright fleshy rose, with outer edges tinged with sulphur-yellow.

Meissonier. Rich brilliant red; extra-large size.

Mme. Breon. Flesh, with white center.

Mme. Crousse. White, with pink tinge; center petals with carmine edges.

Mme. de Verneville. Sulphur to flesh-white; large, full and double.

Mme. Emile Galle. Clear pink, running lighter toward center.Mme. Jules Calot. Flesh-white, tinted rose on

outer petals; fine form.

Mme. Jules Celie. Extra-fine crimson.



DOUBLE HERBACEOUS PEONIES

Herbaceous Peonies, continued

Mme. Lebon. Enormous flowers of cherry-red.
Model of Perfection. Beautiful soft pink;
large and full.

Modeste Guerin. Cherry-rose; large and full.

Mons. Baucharlataine. Large; rosy lilac,
edged with white.

Mons. Krelage. Deep rose-red; very full and free.

Mrs. Lowe. Blush, center cream-yellow.

M. Thiers. Rose, shaded purple.

Officinalis alba fl. pl. Large, double white flowers.

Officinalis rosea fl. pl. Beautiful, clear pink; double.

Officinalis rubra pleno. Rich deep crimson; very early and one of the brightest of all dark-colored varieties.

Prince de Galles. Carmine-rose.

Princess Mathilde. Rose; tinged violet; enormous flower.

Pulcherrima. Light satiny rose, center blushwhite; double.

Queen Victoria. The broad guard petals are a pretty blush-color; the center flesh-pink.

Reevesii. Pink, white center.

Richardson Perfection. Large; light flesh, with white center.

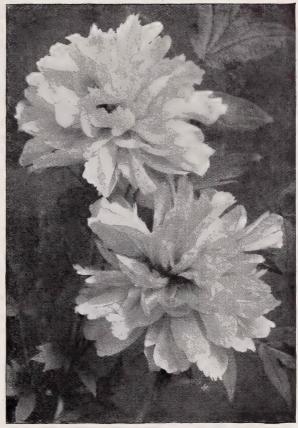
Richardson's rubra superba. Grand red flowers; very vigorous.

Rose Quintal. Pink, cream center.

Rosea plenissima superba. Bright clear rose; full-centered double; dwarf and compact grower.



HARDY PHLOX



PÆONIA FESTIVA MAXIMA (see page 102)

Rubra grandiflora. Rich deep crimson; very large and full flowers.

Rubra triumphans. Dark purplish crimson; strong-growing, semi-double.

Sydonie. Lilac-rose, with darker center.

Tenuifolia fl. pl. Double scarlet flowers; foliage fern-like; very early.

Triomphe de Paris. Outside white, center sulphur-yellow.

Triomphe du Grand.

Triomphe du Nord. Clear rose, shaded with crimson; full and double.

Violacea. Deep purple-violet; blooms large and full.

HARDY PHLOXES

Phlox Paniculata

No class of hardy plants is more desirable than the Perennial Phloxes. They will thrive in any position and can be used to advantage in the hardy border, in large groups on the lawn, or planted in front of belts of shrubbery, where they will be a mass of blooms the entire season.



HARDY PHLOX, CANNAS AND ORNAMENTAL GRASSES

Hardy Phloxes, continued

All the Phloxes, with the exception of the dwarf varieties, are admirably adapted to cutting. Every stem is topped by a heavy pyramidal flower-cluster. If a few of these are pinched back, or even if the flowers are removed as soon as they have faded, good, smaller spikes will succeed them until frost.



BORDER OF HARDY PHLOX

We offer an excellent assortment, selected with great care from the best European collections.

Athis. Light salmon-rose; tallest of all.

August Revere. Bright salmon-rose, with red eye. Baron de Peuch. Brilliant carmine rose, white eye. Bayard. Rosy lilac.

Beranger. Rosy white, suffused gray; very delicate.

Bouquet de Fleur. White, with pink center.

Bridesmaid. Pure white, with large crimson center.

Chameleon. Varies from rosy scarlet to deep rose.

Champs-Elysees. Fine, rich purplish crimson.

Charlotte Saisson. White, suffused crimson; tall.

Coquelicot. Pure scarlet, with crimson eye.

Crepsecule. White, shaded violet, with extra-large, carmine-purple eye. Late-blooming; flowers are quite large.

Cross of Honor. Lilac, margined white; unique.

Diplomat. Large; lilac, with crimson eye.

Eclaireur. Salmon-scarlet, with bright crimson eye.

Epopee. Violet, center bright red.

Hector. Large; light pink.

Henri Murger. Large, pure white flowers with carmine center.

H. Menier. White, suffused with mauve.

Lothair. Bright, dazzling crimson.

Hardy Phloxes, continued

Madagascar. Delicate rose with white halo.

Matador. Orange-scarlet; cherry-red eye.

Miss Lingard. The finest pure white; immense heads; blooms in June and in September.

Mme. P. Langier. Salmon-pink;dark eye.

Moliere. Salmon, flushed rose, deeper rose center.

Mr. Gladstone. Tender satiny rose, with red eye.

Obergartner Wetteg. Light rose, with lighter center and red eye.

Pantheon. Rosy salmon; very large.

Pecheur d'Islande. Large, salmon flowers, with white ray in center.

Prime Minister. Rosy white, with center of deep rose.

Professor Schlieman. Salmon-rose, with carmine

Richard Wallace. White, with violet center.

R. P. Struthers. Brilliant rosy red, with crimson eye. Snowflake. Pure white.

The Pearl. Extra fine pure white.

Virgo Marie. White; large and beautiful.

Dwarf Species

P. subulata. Moss PINK. Low-spreading stems and narrow, moss-like leaves; flowers pinkish purple, with darker center, produced in wonderful profusion in April and May. Makes fine edgings.

var. alba. A white-flowering variety of the above, very showy when in flower, presenting a mass of bloom like a sheet of snow.

P. amœna. Very early in spring the small plants are entirely covered with pinkish purple flowers.

Bulbs and Tubers for Spring Planting.

Fuller lists and descriptions of varieties will be found in Catalogue No. 2, together with hints on culture

AMARYLLIS

- A. formosissima. Jacobæan Lily. Velvety crimson flowers early in summer. Planted out in May in rich ground. The roots are stored like dahlias during winter.
- A. equestris. Bright salmon-pink, with distinct, snow-white blotch at base of petals.
- A. Johnsonii. An elegant variety, with crimson flowers 5 inches in diameter; each petal is striped with white down the center. Flower-stalk 2 feet high, with clusters of three to five blooms.

GLADIOLUS

We offer the favorite classes and newer varieties, as well as the old. The flowers are of almost every desirable color—brilliant scarlet, crimson, creamy white, striped, blotched and spotted in the most curious manner. Plant thickly in groups or lines for best effects and at intervals until July for succession.

CANNAS

The large-flowered Dwarf Cannas begin to flower a short time after planting and are a mass of gorgeous colors until withered by frost in fall. When grown as pot-plants they are beautiful specimens for the porch in summer and continue to bloom for some time in winter if taken into the house or conservatory. We have a splendid list of all the finest varieties of Cannas, both named and unnamed, which will be found in the Plant Department in our No. 2 Catalogue.

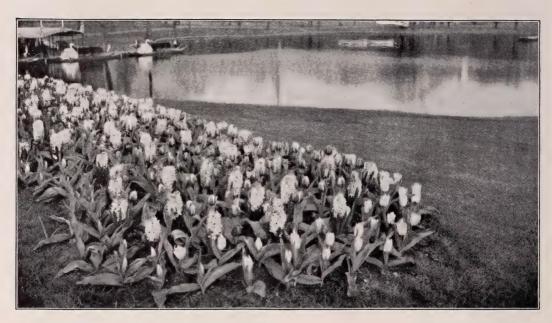


DAHLIAS

Dahlia societies and Dahlia shows, together with the production of a number of new types, both elegant and exquisite, have again given to this brilliant and stately autumn flower the prominence it deserves. We offer a choice collection of select newer and standard sorts, all of which are fully described in our No. 2 Catalogue.

TUBEROSES

Grown for their fragrant spikes of heavy, waxenwhite flowers. We offer the fine old Double White, The Pearl, of dwarfer habit, and the Variegatedleaved, which opens single white flowers several weeks earlier than other sorts, and has leaves beautifully variegated with creamy white. All of these varieties are the finest of their respective classes.



Hardy Bulbs for Fall Planting

Fuller lists of species and varieties, with their descriptions, are given in our No. 3

Catalogue, issued in autumn

CHIONODOXA

C. Luciliæ. GLORY-OF-THE-SNOW. One of the most lovely hardy spring-flowering bulbous plants, producing spikes of lovely azure-blue flowers, with pure white centers. It is perfectly hardy, and may be planted as edgings to beds, or in clumps and masses.

CROCUS

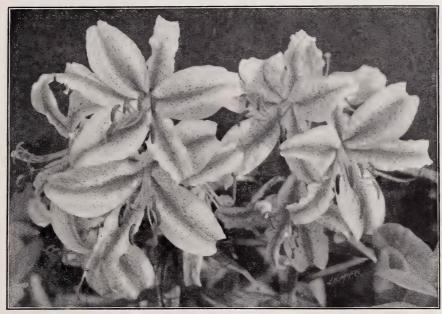
Naturalized in the grass, or planted thickly in irregular lines, as a border for taller-growing bulbs, or grown in any way whatever, the Crocus is always a cheery and charming little flower. It opens among the first flowers of early spring, while the snow yet lies white on north hillsides, in a cold, dull time, when its bright colors are much appreciated. Blue, White, Striped and Yellow.

GALANTHUS. Snowdrop

G. nivalis. This is the earliest of spring-flowering bulbs, is universally admired for its elegant, snowwhite, drooping blossoms. Plant thickly in groups in some sheltered spot, and the flowers will surprise you before the snow is all gone, bringing with them the first breath of spring.

HYACINTHS

We recommend for forcing large bulbs of single named varieties, with a few double ones for variety, and the charming early Romans. The unnamed sorts will be found quite satisfactory for bedding and are less expensive. Planted among shrubbery and perennials they need not be disturbed, and will go on blooming each spring, but not quite so large in flower as when first planted.



LILIUM AURATUM

LILIES

No class of plants capable of being cultivated out-of-doors possesses so many charms; rich and varied in color, stately and handsome in habit, profuse in variety, and of delicious fragrance, they stand prominently out from all other hardy plants. Lilies thrive best in a dry, rich soil, where water will not stand in winter. After planting they require very little care, and should not be disturbed for several years. Established plants bloom more freely than if taken up annually. Plant in groups of five or six, or in large beds.

- L. auratum. Gold-banded Lily of Japan. Flowers very large, delicate ivory-white, thickly dotted with rich, chocolate-crimson spots. A bright golden band runs through the center of each petal. The finest of all Lilies.
- L. candidum. The old-fashioned pure white garden Lily. One of the hardiest.
- L. Batmanniæ. Rich apricot-yellow; distinct
- L. Harrisii. Bermuda Easter Lily. Flowers large, trumpet-shaped, pure waxen white, gracefully formed and delightfully fragrant. The ease with which it can be forced into flower in winter has made it wonderfully popular. For church decoration at Easter.
- L. longiflorum. Large, snow-white, trumpet-shaped; very fragrant.
- L. Melpomene. Flowers large and abundant; rich blood-crimson, heavily spotted.
- **L. pardalinum.** Scarlet, shading to rich yellow, spotted brownish purple. Effective when planted in groups.

- L. tigrinum fl. pl. DOUBLE TIGER LILY. Orange-scarlet, with dark spots.
- L. superbum. Turk's Cap Lily. A native species; flowers brilliant orange-red.
- L. speciosum. White, shaded with rose, spotted red. var. album. White, with a slight rose tint on the ends of the petals.
- L. Wallacei. Japanese; buff flowers, spotted black.



LILIUM SPECIOSUM



SINGLE NARCISSUS

NARCISSI

Some of the Narcissi bloom as early as the crocus, making the garden look very cheery and bright with their gold-color in spring. The flowers assume many forms and present many charming combinations of white, gold, primrose, orange, sulphur and pure yellow. Some are quite fragrant; all are very hardy, except the clustered Polyanthus varieties. We list here but a few of the prominent forms, referring to our annual autumn catalogue for fuller lists and descriptions.

Double Narcissi

N. alba plena odorata. THE DOUBLE WHITE POET'S NARCISSUS. Snow-white, exquisitely scented.

N. incomparabilis. BUTTER AND EGGS. Large double flowers, rich yellow, with orange center; fine for winter flowers. One of the finest.

Orange Phœnix. Large, full flowers of mingled orange- and lemon-colored petals.

Silver Phœnix Exquisite regularly fluted blossoms of creamy white and sulphur-yellow.

Single Narcissi

Bulbocodium, or Hoop Petticoat. Odd and unique little flowers, with very much inflated cups of rich yellow.

Ajax princeps. Yellow, with creamy cup. Dainty and effective.

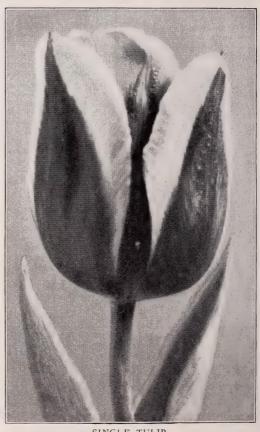
Trumpet Major. Sulphur perianth and large yellow trumpet. A favorite both for forcing and openair culture.

Poeticus ornatus. Poet's Narcissus. White perianth, with primrose-yellow cup, edged with crimson.

Obvallaris. A very early sort, with rich yellow flow-

TULIPS

These are the most glowingly brilliant and effective of all the early spring flowers. Plant them thickly and lavishly in the fall, and they will reward you with abundant cheer during the cold, dull months of early spring. We offer many varieties. The Duc Van Thols are earliest to bloom. Then come the Single Early and Double Early sorts,-the Parrot, Late Show, and other fine species. For lists and descriptions of all we refer to our Fall Bulb Catalogue.



SINGLE TULIP

All the Narcissi, particularly the single varieties, can be successfully naturalized in the grass or in the shrubbery border. They need no attention, and will bring cheer in the early spring as no other flower can do.

SPRAYING CALENDAR

EXPLANATION.—While the number of applications recommended will be found desirable in seasons when the fungi are particularly troublesome, a smaller number may often suffice. Those printed in boldface are of most value, and can generally be made with profit. **An Asterisk** (*) cautions against spraying with poisons while the plants are in blossom; a dagger (†) indicates that there is danger in making application within 3 weeks of the time the fruit is to be used as food.

Plants	1st Application	2d Application	3d Application	4th Application
Apple, Scab codlinmoth, bud moth, caterpillar, canker worm.	After the blossoms have formed, but before they open, Bordeaux.	Within a week after blossoms fall, Bordeaux and Paris Green.	10 to 14 days later, Bordeaux and Paris Green.	10 to 14 days later Bordeaux.
Rot, aphis, curculio, slug, knot.	As flower-buds appear, but before they open, Bordeaux; for aphis, use Kerosene Emulsion.	When fruit has set, Bordeaux and Paris Green.*	10 to 14 days later, if signs of rot appear, repeat.	10 to 14 days later Ammoniacal Car bonate of Copper.
Currant, Mildew, worms	As soon as worms are found on lower and inner leaves, Paris Green.	If they reappear, repeat, adding Bordeaux for mildew. †	If worms still trouble, Pyrethrum or Hellebore.*	After fruit is picked Bordeaux.
Gooseberry, Mildew, worms	As leaves open, Bordeaux and Paris Green.	In 10 to 14 days, repeat with both.	10 to 14 days later, Sulphide Potash, on English varieties.	10 to 14 days later repeat.
Grape, Fungous diseases, flea beetle.	When first leaves are half-grown, Bor- deaux and Paris Green.	As soon as the fruit has set, repeat.*	10 to 14 days later, repeat.	10 to 14 days later, if disease is present apply Bordeaux.
Peach, Apricot, Rot, curculio, leaf curl, mildew.	Before blossoms open, Bordeaux.	Within a week after fruit has set, Bordeaux and Paris Green.*	7 to 12 days later, repeat.	7 to 12 days later, repeat.
Pear, Leaf-blight, scab, psylla, codlin moth.	Just before blossoms open, Bordeaux.*	Within a week after blossoms fall, Bordeaux and Paris Green.	8 to 12 days later, repeat.	10 to 16 days later, Bordeaux.
Plum, Fungous diseases, rot, curculio, knot.	Within a week after blossoms have fallen, repeat.*	10 to 12 days later, repeat.	10 to 20 days later, Bordeaux.	Note.—If black knots are found on plum or cherry trees, they should at once be cut out and burned.
Quince, Leaf and fruit spots.	When blossom buds appear, but before they open, Bordeaux.	When fruit has set, Bordeaux and Paris Green.*	10 to 12 days later, repeat.	10 to 20 days later, Bordeaux,
Raspberry, Blackberry, Anthracnose, rust.	Cut out canes badly diseased with an- thracnose, and burn. Before buds open, spray with Copper Sulphate solution	When new canes appear, Bordeaux and Paris Green.*	10 to 14 days later, repeat. \dagger	Note.—If red rust appears, the entire stool affected should be grubbed out and burned.
Rose, Aphis, worm.	Kerosene Emulsion for aphis.	10 days later, Bordeaux and Paris Green.	Afterwards keep lice and caterpillars off by turning a fine stream from hose on under side of leaves.	

Do not spray with arsenites or copper compounds within 3 weeks of the time the sprayed portions are t_0 be eaten. While there would be no danger of fatal effects resulting, it is best not to run any risk. Bordeaux mixture and other lime compounds should not be used upon rough or full-grown fruits even as late as that time. Not only does the lime disfigure the fruit, but the amount of copper is large.

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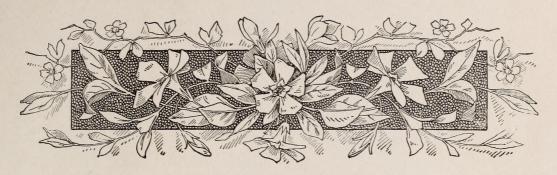
EUROPEAN WHITE BIRCH (See page 39)

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FORMULAS

BORDEAUX MIXTURE. Copper sulphate, 6 pounds; quicklime, 4 pounds; water, 40 to 50 gallons. Dissolve the copper sulphate by putting it in a bag of coarse cloth and hanging this in a vessel holding at least 4 gallons, so that it is just covered by the water. Use an earthen or wooden vessel. Slake the lime in an equal amount of water. Then mix the two and add enough water to make 40 gallons. The liquid is then ready for immediate use but will keep indefinitely. If the mixture is to be used on peach foliage it is advisable to add an extra pound of lime to the above formula. When applied to such plants as carnations or cabbages it will adhere better if about a pound of hard soap be dissolved in hot water and added to the mixture. Use for rots, molds, mildews and all fungous diseases.

COPPER SULPHATE SOLUTION. Copper sulphate, I pound; water, 15 gallons. Dissolve the copper sulphate in the water, when it is ready for use. This should never be applied to foliage, but must be used before the buds break. For peaches and nectarines use 25 gallons of water. Use for fungous diseases.

KEROSENE EMULSION. Hard soap, ½ pound; boiling water, I gallon; kerosene, 2 gallons. Dissolve the soap in the water, add the kerosene, and churn with a pump for 5 to 10 minutes. Dilute 10 to 25 times before applying. Use strong emulsion for all scale insects, for insects which suck, as plant-lice, mealy bugs, red spider, thrips, bark-lice or scale. Cabbage worms, currant worms, and all insects which have soft bodies, can also be destroyed with this emulsion.

PARIS GREEN. Paris green, I pound; water, 200 gallons. If this mixture is to be used upon peach trees, I pound of quicklime should be added. Repeated applications will injure most foliage, unless lime is added. Paris green and Bordeaux mixture can be applied together with perfect safety. Use at the rate of 4 ounces of the arsenites to 50 gallons of the mixture. The action of neither is weakened, and the Paris green loses all caustic properties. Use for insects which chew.

HELLEBORE. Fresh white hellebore, I ounce; water, 3 gallons. Apply when thoroughly mixed. This poison is not so energetic as the arsenites, and may be used a short time before the sprayed portions mature. Use for insects which chew. Can also be used dry by dusting on plants.

LONDON PURPLE. This is used in the same proportion as Paris green, but as it is more caustic it should be applied with two or three times its weight of lime, or with Bordeaux mixture. The composition of London purple is exceedingly variable, and unless good reasons exist for supposing that it contains as much arsenic as Paris green, use the latter poison. Do not use London purple on peach or plum trees unless considerable lime is added. Use for insects which chew.

LIME, SULPHUR AND SALT. Stone lime, 15 to 30 pounds; flowers of sulphur, 15 pounds; salt, 15 pounds; water, 50 gallons. Slake the lime in a small quantity of hot water, gradually adding and thoroughly stirring in the sulphur. Dilute the mixture with twelve gallons of water and boil in an iron kettle or cook by steam in a covered tank or barrel for one and one-half hours. Then add salt, continuing the boiling for one-half hour more. Fill vessel up with water to the required fifty gallons. Strain wash through a fine mesh strainer and apply hot. In using an iron kettle, keep the mixture vigorously boiling and thoroughly stirred to prevent caking and burning of materials. Wash cooked by steam is more easily prepared and better made. Apply wash just as the buds begin to swell in the spring. Cover all parts of the tree with a heavy coat of the wash. The wash seems best adapted to orchardists who have not yet learned to use petroleum with safety or are afraid that their trees are beginning to show injury from the oil or will not stand many more applications of it. It is especially recommended for the treatment of peach trees. It is believed that the substitution of one and one-fourth pounds of blue vitriol dissolved in hot water for the salt results in quicker-acting wash. This formula is known as the Oregon Wash. Use for scale and fungous diseases.

Any of the Agricultural Experiment Stations will furnish bulletins so arranged that the grower may see at a glance what to apply, when and how to make the applications.

THE STORRS & HARRISON Co Painesville, Ohio

FRAU KARL DRUSCHKI ROSES